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91

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(Greyhawk) is at the top of my can't-wait-to-play list"  
- PC Gamer



IGN.Com- E3 2003



DAILYGAME.Net- E3 2003



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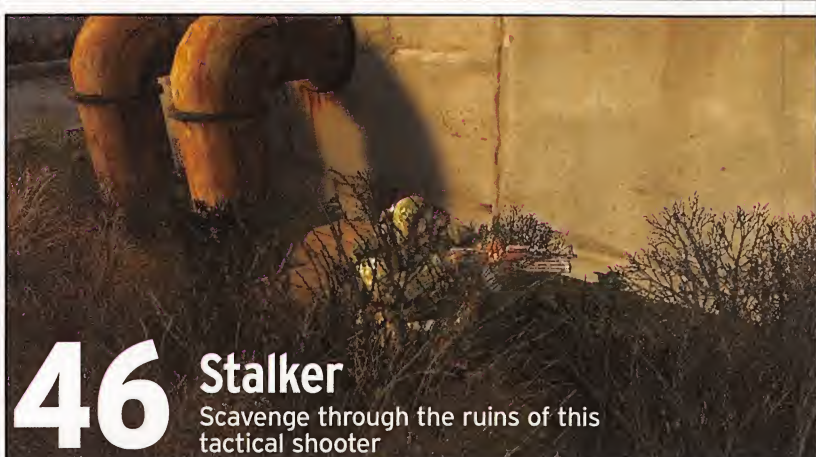
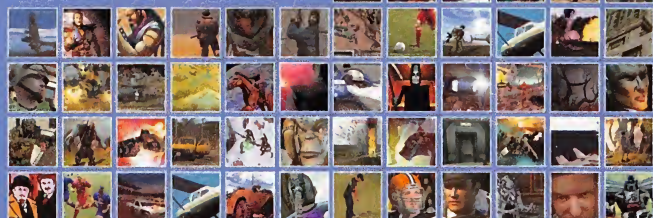
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SimCity 4 images courtesy of Electronic Arts





# DOUBLE THE FUN

Two DVDs. Two free games. It looks like we've spoiled you again. Sorry about that.

The nine gigabytes of gaming mana on the front of the DVD edition of PCPP this month is remarkable for many reasons. But one is worth shouting about right here: as far as we're aware, we are the first magazine in the world to offer two DVDs for no additional price.

Let's not get carried away just yet. This isn't a monthly thing from now on - although it'll probably happen again before the year is out. It's merely recognition of a trend that has been growing over the past few months. That is, more PCPP readers own DVD drives than not; our DVD edition now consistently outsells the CD version. Precisely because of this fact, it's certainly not out of the question that come this time next year, every issue of PCPP will boast nine gigabytes worth of demos, patches, utilities, mods, trailers, wallpapers, screensavers and of course full version games.

So, do we keep the CD version going? Do we up it to three or four discs? Or do we scrap the CD option altogether and leave you to choose between two DVDs for twelve bucks or no disc at all for about half that price? Let us know.

Another first this month is our incredible subscriptions prize. We printed our annual Top 100 Games of All Time list last issue; this time we want to give it away. That's right, every game in our Top 100 (at least, excepting those really old ones we couldn't track down) could be yours. Just subscribe - in either this issue or next - for your chance to win the ultimate games collection. Special thanks to Activision, Atari, Electronic Arts, Microsoft, Red Ant, Take 2, Ubi Soft and Vivendi for making this promotion possible.

Now, back to playing CM4...

**David Wildgoose,**  
Editor  
davidw@next.com.au



## The ones to blame



**David Wildgoose**  
EDITOR

"If you were sitting here and I were you, you'd be laughing too."

Playing: Championship Manager 4. Obsessively.



**Dina Oh**  
SUB EDITOR

"Ultimately, aren't we all just talking monkeys with an attitude problem?"

Playing: Sims Superstar. Angrily.



**Daniel Wilks**  
SENIOR WRITER

"We are the bored. Entertainment is futile."

Playing: Shadows of Undrentide. In the dark.



**Bennett Ring**  
DEPUTY EDITOR

"The best thing about PCs is that they fly around the room when you get real mad with them."

Playing: Desert Combat. Passionately.



**Shari Davies**  
ART DIRECTOR

"Who could have predicted that flavoured milk would be such a lightning rod of controversy?"

Playing: Stud poker. Poorly.



**Timothy C. Best**  
SENIOR WRITER

"My post-op photo is much better"

Playing: Everquest 2. Nerdily.



**Amos Hong**  
DISC EDITOR

"There may always be room for Jello but it's not much fun when you're standing in it."

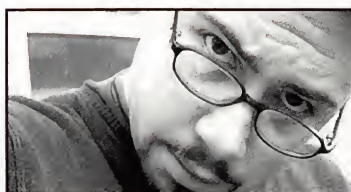
Playing: EA's NVP. Strategically.



**Joel Graham**  
ADVERTISING MANAGER

"No Sir, I didn't like it."

Playing: Hide and Seek. Quietly.



**Anthony Fordham**  
SENIOR WRITER

"If our knees bent the other way, what would chairs look like?"

Playing: Quake 3. Aggressively.

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## INBOX

## EAT MY SOCKS

The last time I went to the laundromat to dry my clothes - as I didn't want them to take over a week to dry in the cold Melbourne winter - I took your mag to read. While I was there, I noticed another magazine from 1996 (PC Format UK edition), so I decided to leave my copy of PowerPlay I had just finished reading at the laundromat for someone else to read, and as a sacrifice to the Laundromat God so he wouldn't eat my socks.

Tim Chmielewski

A wise decision. No one wants to make the Laundromat God angry.

## BARE BEIGE

As a loyal subscriber for the third time running, I'm always looking for ways to milk out as much as I possibly can from the magazine. I was thinking it would be great to cover up my bare beige walls with some really cool posters of the PCPP features, reviews or previews. Just a thought.

Michael Sweeny

Posters? Pfft. How about some PCPP wallpaper? Or wall hangings? Towels? Boxer shorts? If we did some PCPP merchandise and accessories, what would you like to see?

Last November, I decided to stay up late and watch Letterman. While I was waiting for Letterman to come on, I witnessed a horrible case of gamer bashing, (not actual fight bashing but verbal bashing). This guy, can't remember his name, came on NBC Today and claimed to be an "attorney and videogame expert". This poor misguided fool said games were responsible for all of the recent school shootings in the US. He was concentrating his hate on two games in particular, Sniper: Path of Vengeance and Half-Life: Counter-Strike. He said the main objective in these games was to kill hostages. This alleged videogame expert said that when we engage the scope in games with sniper rifles, gamers



Here's your typical PC gamer...

...and here's something that'll really get the ladies going!

PC PowerPlay



Yea, leave them something to read, sayeth the Lord

## ACTUAL FIGHT BASHING



call this the God Mode. WTF? GOD MODE? I have never heard at any point in my gaming career of the sniper mode being referred to as the God Mode. And to make matters worse, the show



It came in a CD Drive box, so I was scared that I had bought something accidentally.

Michael Sweeny

## SNIPPETS



No more Largo Winch jokes, please.

Liam Linstid

brought him back on in late March this year after a school shooting in Germany. Basically, he reiterated what he said the first time. Personally, I think games are the new comic books or TV. Comics were blamed for low IQs in the 30s and the same for TV in the 50s, and now games are taking the rap.

Rory Byrne

Thanks for the laugh. Whoever said videogames are now mainstream entertainment is an idiot.

## MADE SOME TOAST

Recently, I embarked on a quest to speed up my computer as 1.5GHz and a crappy GeForce2 I've had for a year now can't obey that guy's law about speed doubling every 18 months. I

could buy some new hardware but that would involve working. What to do? Overclock! Rather than jumping straight in and frying my Athlon, I researched. Several sites were very helpful with detailed lists of what speed people have managed to overclock; some nutter managed 2.8GHz out of the same 1800+ I own. Pages of notes later, I ventured to my BIOS, changed some settings, then magically, like I have the power to disobey the laws of physics, my 1.53GHz AMD Athlon XP Palomino is now at 1909MHz. My PC is now quite stable and happy, working faster than ever without me spending a dollar.

After that hard work, I felt rather hungry and travelled to the kitchen, made some toast, boiled some water and took a cup-a-soup.

## SNIPPETS



Those games in the budget bin aren't always bad!

Ben Whelan



Now who said PCs and slapstick don't go hand in hand?



# FROM THE FORUMS

## The Next Media Championship Manager 4 League

### Subject: The Next Media Championship Manager 4 League update

We've just started a network game of CM4 here in the office, and this thread will keep you updated on how we're progressing.

First of all, we decided, based on the results of a 3-2-1 voting system, to commence our game in the French Ligue 1. (Scottish football fans can take heart that their Premier League was a close second choice.)

Second, we picked our teams: David, PCPP Editor - Monaco

Elliot, Hyper Editor - Bordeaux

Jackson, PSW Editor

- Le Havre

Fahri, Next IT guy - undecided at the time of writing

Malky, Hyper Art Director - leaning towards Auxerre.

Stay tuned for more news later today. Exciting, isn't it?

David, PCPP Editor

Well, it's been a scintillating couple of hours here in France. Le Havre manager, Jackson Gothe-Snape, pulled off the audacious signing of 13-year old American wonderkind, Freddy Adu, within minutes of the game commencing. He's been joined at the club by the fabulously named Slovenian centre-back, Fabijan Cipot. The fans are expecting big things from the canny Gothe-Snape. Meanwhile, Monaco offloaded veteran Italian striker, Marco Simone, to Bordeaux at a cut-price £100,000. Eliot Fish was delighted with his new recruit, saying, "He's got better stats than my current strikers."

Monaco manager, David Wildgoose, commented, "He was over the hill." In other news, the enigmatic Fahri, the IT guy, has yet to select a side, while Bennett remarked he'd prefer to watch paint dry.

David, PCPP Editor

You're in for a challenge with Monaco, David, they're dire. Malky probably has the best squad if he goes for Auxerre, they've got top young talent.

eltharion\_doa, Overmind

Good to see you guys are working hard as usual, ahaha!!!

Harnet, Counter Terrorist

Le Havre has secured the loan signing off Auxerre's young France International defender, Phillipe Mexes, for the whole season.

Malky's sick day: costly.

Jackson, PSW Editor

Still looking for a quality DC to play alongside loan signing Christianval, though - I'm using Fanfan there now, but I'd prefer him at right-back or on the bench. Any suggestions?

David, PCPP Editor

Anderlecht has a number of good, reasonably cheap central defenders (Tihinen, Junior, Hellings) from memory, or you could raid Coventry for young Callum Davenport. Mtaka Simba of Djurgardens is supposed to be decent, though I've never used him. Or, for a bit of versatility (D/DM RC), try Pah Madou Kah of... er... Valerenga? I think. Even someone like David May is pretty cheap and will perform nicely for a couple of seasons.

eltharion\_doa, Overmind

I imagine there's a good reason why David May is pretty cheap, i.e. he's crap. Besides, I don't want no ex-Manure scum in my club.

David, PCPP Editor



David, PCPP Editor: Monaco



Fahri, the IT guy: Undecided



Jackson, PSW Editor: Le Havre



Eliot, Hyper Editor: Bordeaux



Malky, Hyper Art Director: Auxerre



In a rush, I ripped open the cup of soup and covered the kitchen with powdered chicken stock. This made me think. If my brain was faster, would I have been able to concentrate enough to open it properly? Or, would I have been able to hit that cricket ball, instead of it hitting me in the nuts? This begs the question, how can I access my brain to limb signal (FSB) to stop this from happening again? Even better, how can I make the serotonin in my brain jump between my neurons faster (CPU speed)?

Well, twelve spatulas stuck in my brain didn't do it, but I can now put my finger in a TV socket and get better reception than any other indoor aerial I've ever used. I think I might stick to computer upgrades for the time being.

Josh Clarke

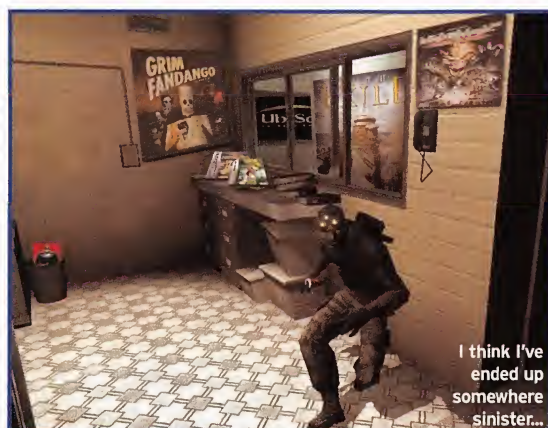
Moore is the guy's name you were searching for.

### THOSE WERE FIXED

I think after reading all the comments from the previous edition concerning Splinter Cell that it is only fair if someone says something nice about the game. I have recently been playing the game, and I have found it highly addictive, not disappointing. I had troubles at the start with it due to my graphics card drivers, but once those were fixed it ran like a dream. I don't know what people didn't like about the game, but I found it incredible due to the AI, difficulty, and the fact that it was very life-like compared to other games.

Nathan Everett

You don't work for Ubi Soft, do you?



I think I've ended up somewhere sinister...



Allen Adham has finally written in to PCPP Inbox!



### KING OF THE WORLD

Being the greatest Blizzard fan in the world, especially when it comes to Warcraft, I was extremely disappointed and angered at the preview of War of the Ring (PCPP#89). How can you people call it Borecraft? At least Blizzard can come up with its own story, unlike Liquid, which has to use one of the greatest books of all time to come up with a game! I didn't see Battle Realms as Game of the Year; I did see Warcraft 3 there though. I think some people need to take a closer look at themselves before they start judging games as if they're the kings of the world.

Blake Lancashire

So then, you haven't played Battle Realms. War of the Ring, barring unforeseen disaster, is going to be superb.

### TURN-BASED KILLING

Remember the good old classic XCOM series? Well, while pottering around on the old P2 the other day I decided to start up XCOM: Terror from the Deep. The same thing happened to me as it did the first time I bought it. It captivated me

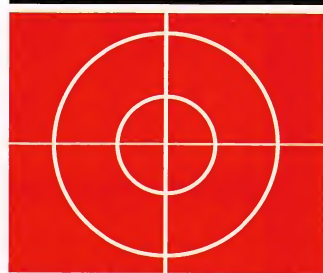
and I kept playing it. It was like I got sucked into some sort of altered reality where scientific research and the turn-based killing of aliens was fun again.

I've been playing it for a couple of weeks now (not 24 hours a day, just a little less), and it is, apart from the crappy graphics by today's standard, a really good game. I'm being serious here. I was wondering if there were any games, apart from XCOM: Apocalypse (which wasn't as good as UFO and TFTD, I thought) that are of a similar nature? If there isn't, I guess I'll just have to keep playing this until (yum) Half-Life 2 comes out! YAY!

Jim Drougas

Don't be ashamed, XCOM remains a classic title. There's a spiritual, if unofficial, sequel entitled UFO: Aftermath in development at Altar Interactive. No release date nor Australian publisher has yet been confirmed.





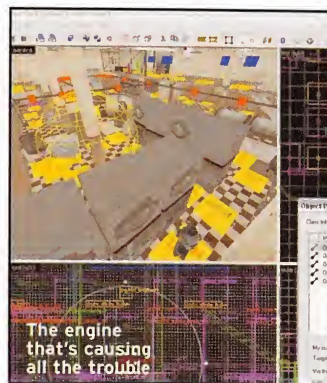
# Insight



High  
expectations  
dashed by  
jaggies



On the right; a  
more accurate  
representation?



The engine  
that's causing  
all the trouble

## HALF-LIFE 2 REALLY WILL LOOK BETTER ON ATI CARDS

### No, really!

Bennett Ring

Half-Life 2. Saying these three words is enough to turn most PC gamers into a quivering mess of anticipation and excitement. We can't think of a single bad word that has been said about this game, with copious amounts of glowing praise heaped on the upcoming title from all corners of the globe. So you can imagine our dismay when a recent article on X-bit labs ([www.xbitlabs.com](http://www.xbitlabs.com)) exposed a glaring problem with the Source engine, which powers the graphical Tour De Force that is Half-Life 2.

It seems Valve didn't take into consideration that DirectX 9 doesn't expose a feature known as Centroid Sampling. The problem occurs when anti-aliasing is enabled at the same time that packed textures are used (smaller textures are packed into larger textures,

a technique that is used in Half-Life 2's textures to increase performance yet retain high detail). If you try to enable anti-aliasing on packed textures, polygon boundaries become distorted with artifacts. This explains why all of the footage of HL2 that has been released has not had anti-aliasing enabled. In a nutshell, you won't be able to play HL2 with anti-aliasing enabled on today's hardware with DirectX 9.

It turns out that Centroid Sampling will only be enabled with the release of DirectX 9.1, and until then it looks as if gamers are going to have to get used to the jaggies all over again. And even when DX9.1 does arrive, you're going to need a videocard that supports Centroid Sampling. Needless to say, owners of high end videocards such as the RADEON 9800 PRO and GeForce FX

5900 are more than a little peeved about this problem. After all, one of the main reasons for forking out over \$700 on these videocards is to be able to play with anti-aliasing enabled, and once you're used to the visual feast from anti-aliasing, it's incredibly hard to go back to gaming without it.

There is hope though for current owners of high end videocards - provided they're using a card manufactured by ATI. It appears that all RADEON 9XXX cards support Centroid Sampling, so it will only take the release of DX9.1 and 9.1 enabled ATI drivers for these users to be able to play HL2 with anti-aliasing enabled. There is even the possibility of an ATI workaround before DX9.1 ships. Sadly for NVIDIA owners, the fix isn't quite as simple. According to Gabe Newell, there is a trick to get this to work on the NVIDIA cards. "Basically you trade off some pixel shader bandwidth to clamp the texture coordinates so that you don't sample texels outside of that polygon's lightmap



sub-rect." Simple really. This suggests that there is going to be more of a performance hit when using this technique on NVIDIA cards. Due to the close relationship between ATI and Valve, there are now a million and one different conspiracy theories now circulating the Net about this issue. However, we tend to believe it's a simple oversight by Valve, as even ATI hardware is going to have the same issue until DX9.1 is released or a workaround can be created. Here's hoping that 9.1 ships before Half-Life 2's due date, but there is simply no denying how disappointing this problem is. It was inevitable that Half-Life 2 was in some regards not going to be able to live up to the immense hype, but nobody expected a glitch of this magnitude.

Basically you trade off some pixel shader bandwidth to clamp the texture coordinates so you don't sample texels outside of that polygon's lightmap subrect. Simple really





# DOOM 3 SYSTEM REQUIREMENTS

Start saving now

Anthony Fordham

John Carmack of id Software claims that Doom 3 will run on a 1GHz CPU with 256MB of RAM and a GeForce1 or RADEON 7000 series video card. Yeah right.

Online observers in more than a few forums believe the extremely lenient requirements are a pipe dream on id Software's part, designed to take the edge off the current perception that the highly advanced Doom 3 engine will only run on high-end systems.

Since this would adversely affect sales, fans are not at all surprised that id wants to create a counter-perception that the advanced Doom 3 engine is really for the common man who bought his PC at Harvey Norman for \$1199.

Beyond the fairly terse list of basic components, Carmack said nothing else about the game, particularly avoiding to mention how many of the advanced features of the engine would have to be switched off when running a 32MB card like the GeForce.

Denizens of the Doom forums ([www.formplanet.com/3dactionplanet/doom](http://www.formplanet.com/3dactionplanet/doom)) were understandably sceptical, and many believe the original GeForce is listed as a minimum card because it's the lowest spec card that includes the transform and lighting engine required by the game.

Since the game includes environment bump mapping, dynamic lights and stencil shadows -

not to mention high-polygon characters with hundreds of frames of animation each - sensible gamers should hedge their bets and save up for a beefy machine anyway.

After months of experience using Unreal Tournament 2003 as a benchmarking tool, and knowing how the engine compares technologically with Doom 3, we at PCPP can confidently say that if you hope to play Doom 3 and actually enjoy it, you should start saving now for the most powerful videocard you can afford. Obvious advice perhaps, but if you want your aging machine to run a next-generation graphics engine, it stands to reason you're going to need a next-generation graphics card.

## WHAT'S SVEN COOKING?

Sven Viking, the amusingly monikered creator of the Sven Co-op mod for Half-Life, has decided to do it all again for Half-Life 2. Yep, that's right, you (and some friends) will be able to turn Half-Life 2's singleplayer mode into a multiplayer co-operative blast fest. Multiple Gordon Freemans - it's every girl's fantasy come true! Valve has sanctioned the project and will be offering Sven all the assistance he requires, thus relieving them of any need to worry about multiplayer. Cheers, Sven.

# SIDEWINDER UNWOUND

## Microsoft Cans PC Game Peripherals

Timothy C. Best

Microsoft has bowed out of the world of PC gaming peripherals, discontinuing its SideWinder range. The slick joysticks, the tilt control gamepads, steering wheels, force feedback devices and voice-enabling headsets are all on the way out.

The official Microsoft line is that this is a business decision based on dwindling sales that wasn't helped by most PC games now being developed with keyboard-and-mouse control in mind. Other reasons cited include a proliferation of manufacturers and very competitive pricing in the industry.

In a piece of lovely timing, games hardware producer, Saitek, has announced that in anticipation of strong sales of its next generation of joysticks, it is increasing its

production capability by 60 percent. According to Saitek's figures, the PC controller market will be worth a quarter of a billion US dollars in the next 12 months.

Naturally, the decision to go ahead all sticks blazing would have been helped by a major player like Microsoft pulling out of the market, but it does illustrate that there's still money in PC controllers yet. Chances are that if SideWinder sales have been falling it's because Microsoft moved much of its marketing dollars to one piece of gaming hardware: the Xbox. Back in 1996, the SideWinder range came into being as Microsoft tried to push Windows95 as a gaming platform, which happened to be the same year the PlayStation really took off in the US. Now that

Microsoft is pushing Xbox as a gaming solution, it seems the day of the SideWinder is over.

This is not serious however, since Microsoft still has Mythica, a Dungeon Siege sequel and the Age of Mythology expansion on the boil, we can be pretty sure that it isn't abandoning PC gaming... it's just re-drawing some old lines between video and computer games. It's a good thing we don't rely on Bill and his crew for our flight sims, racing games and sports titles.

The official Microsoft line is that this is a decision based on dwindling sales that wasn't helped by most PC games now being developed with keyboard-and-mouse control in mind



Saitek reaps the benefits of SideWinder's departure



# STAR WARS GALAXIES

## Selling like a Hyperactive Jawa

Timothy C. Best

Well, surprise, surprise, it's a hit. Sony Online and LucasArt's Star Wars Galaxies broke all massively multiplayer records, racking up 125,000 subscribers in the first week. Fans were so eager that player registration took several days in some instances.

Obviously, some clever soul at Sony Online wanted to limit the early rush, so Galaxies launched without the usual fanfare and advertising and with only a limited number of copies available.

They were all quickly snapped up, leaving players convinced it was all a scam that would force them to pay extra for the Collectors addition. It should be noted, more than a month after the launch, Star Wars Galaxies and the Star Wars Galaxies Collector's Edition were at the one and two spots for EB sales, and the game has continued to top Amazon PC game sales, as well. Not bad for a massively multiplayer online game with minimum specs weighing in around the lofty P3-1GHz mark.

It seems the beautiful graphics, character customisation and the draw of the cantina has managed to out weigh the usual teething problems, the memory of Jar Jar Binks and George's attempt at romance in Star Wars 2.

Many features were cut from the game to make sure it arrived sooner rather than later, including player owned vehicles and player run cities, not to mention an expansion that tackles space combat, so it looks like the creators of Galaxies still have plenty up their sleeves. It's a fair bet that it'll overtake EverQuest in subscriber numbers; how can anyone compete with the massive Star Wars phenomenon?

As I mentioned before, this has all been achieved with hardly a whisper of a marketing campaign. In short, Sony hasn't even cast the net beyond its core user base. Imagine what will be possible when the game is a little more stable, average PCs specs are higher and the final movie comes out.



# QANTM GAMES

## Par for the Course

Timothy C. Best



Massive potential: Just some of the examples of what these students can do

PC games take years to develop and millions of dollars, right? Well, not for Veneficium or Sen Saint.

These games were whipped up in a mere four months by a bunch of students as a part of QANTM's Diploma of Information Technology.

The students of the specialised development course coded the games, created the models and built the animations during their studies.

Veneficium puts players in control of one of three factions, complete with spell casters, completing gods and unique units, as well as the mandatory troop training, building summoning and mana collection. Admittedly, it only features one level of play and avoids some tricky AI work by being exclusively multiplayer, but nonetheless this RTS is pretty impressive, especially when you consider it's the work of three guys learning the ropes.

Sen Saint is more of a story-based action game, with great special effects.

Each year, the students break into groups to either produce a demo or a game to showcase their skills.

On a broader note, the existence of games like Veneficium and Sen Saint point to a maturing industry with a ripening toolset that allows learners to create spectacular games in a matter of months and with very small teams.

One of the key tools the students used to come so far so quickly was Auran Jet. Jet is the product of

Australian game company, Auran, and was released to give developers access to a world-class game engine without having to take out a loan - and it warms my heart to see it put to good use.

QANTM and the Academy of Interactive Entertainment do more than just teach some people how to make games; they also lay out a career path and make a job in gaming much easier to sell to sceptical parents.

Veneficium and Sen Saint had their grand unveiling at the QANTM open day, along with other games and demos. You can check QANTM's website ([www.qantm.com.au](http://www.qantm.com.au)).

### POTTER-ESQUE

In an obvious attempt to ride on the coat-tails of Harry Potter, the next Sims add-on brings some magic to proceedings. Your Sims can now cast spells to improve their chances in love or get those household chores done faster. In a hilarious twist, you can even turn your annoying neighbour into a frog. The Sims: Makin' Magic will be the final expansion pack prior to the release of The Sims 2 early next year.



# SIM MAFIA ONLINE

## Not so Pleasantville

Timothy C. Best

Jeremy Chase is a self-confessed mobster, extortionist and grief merchant... well, he is in Sims Online at any rate.

CNN Money ran with his tale of Sim crime and a similar story from the Associated Press was to be echoed across the media about a strange new development in this virtual world: Sim Mafioso.

Being a criminal in The Sims isn't easy. For one, the game was designed to be non-violent and Sims can't kill another permanently, but that doesn't deter the creative Sim crim.

You can always gather a mob and assassinate someone's hard earned reputation by getting everyone to tag them with red markers, and we all know pillars of society hate being marked as unpopular lowlifes.

Alternately, you can extort Sims of a 100,000 simoleans by threatening to destroy their painstakingly crafted homes.

Large scale actions like these on the Alphaville server caused Mia Wallace - a Sim so popular that she almost broke the game with her friend rating - to start the Sims

Shadow Government.

More than 100 of the SSG's 1000 members would meet in Yahoo groups and discuss 'crimes' in Alphaville and the appropriate punishment to those caught. The animosity between factions went as far as Mia's possessions being stolen via a hacked AOL account and a Mia impersonator telling friends that the real life wife of the couple who alternated control with Mia had died of cancer. As the revenge and retribution cycle picked up, the SSG turned from peace keepers into the Mafioso.

The Sims has often been lauded as being non-violent, socially based, and equally appealing to both guys and gals, so what is going on with Alphaville and the servers like it?

Perhaps the game launched with too little to do - a complaint made by many players early on - or perhaps even social games need some form of law and order because people don't always get along. Then again, maybe, deep down, there's more than just a little Tony Soprano in each of us than we'd like to think.

# STILL NUMBER ONE

## Samsung dominates the RAM industry

Anthony Fordham

The best way to achieve massive market dominance and not get anyone upset about it is to dominate in a market that no one pays any attention to, such as the production of RAM.

While most PC enthusiasts will be familiar with the brands of RAM DIMMs - Corsair, Kingston etc - few realise that the actual chips are made by different companies. Video cards too now demand up to 256MB of RAM, and the company that can provide the majority of this demand finds itself in a very comfortable position indeed.

While there are a number of different kinds of RAM, all PCs and videocards use Dynamic RAM or DRAM. The currently leader in the DRAM market is Samsung, with a dominating 29.1 per cent in H1 2003, leaving the dregs for smaller companies to fight over.

Samsung confidently expects to round out the year with a 36% market share, thanks to rising demand for DDR400 chips and a steady second-tier market for DDR333 as well.

Samsung's largest competitors are Micron and Infineon, who are currently battling it out for second place, also thanks to demands for 400MHz memory.

The Big Three of RAM - Samsung, Micron and Infineon took care of 69% of the market last year, while Hynix, Nanya, Winbond, ProMos and 0.6% of

obscure little guys made up the rest.

Even though RAM prices are famously unpredictable, shooting up and down like some kind of expensive fountain in front of an overblown Vegas casino hotel, you can expect the battle to only get hotter as more and more educated PC users start demanding high-quality DDR chips for their thrashed-out dual channel systems.

Of course, we at PCPP won't be truly satisfied until the day RAM costs \$1 a gigabyte. It won't happen overnight, but it will happen. Maybe.

### UNREAL 2 MP?

What a disappointment. Unreal 2, that is. Not only was the solo campaign not much cop, but there was no multiplayer at all. But that could change, if Mark Rein, head of Epic, can be believed. The lack of multiplayer, we mean, not the quality of the single-player. Here's the quote: "Lack of multiplayer is a temporary issue with Unreal2. Legend are currently reviving their XMP design for multiplayer and it will be released as a FREE downloadable add-on for people who own Unreal2."





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Timothy C. Best

**S**teady on there, Tiger. XIII's cast is no joke, even if it does feature comic duo Merrick and Rosso. Yes, our very Aussie larrikins are going to feature in Ubisoft's cel-shaded international spy thriller.

How did this come about? It seems the lads at the Australian branch of Ubisoft called them and asked if they wanted in. Did they ever:

"It's really exciting for us to be involved in the casting for this video game," said Merrick. "It's not the first time we've been involved in games. I was the body model for Duke Nukem and, of course, Rosso is famous for his work as Lara Croft."

Rosso also had a line at the ready: "XIII is a bloody addictive game. The last

time my joystick saw this much action was in a hotel in Vegas. Does this come out on the Commodore 64?"

XIII will feature characters from several regions from around the world, with most of them having been won by contestants. Ubisoft Australia instead went for something a little more quirky - by throwing in a couple of classic Aussie layabouts as deadly foes.

In case you want to play one of these, they'll be available in the multiplayer mode. With Merrick and Rosso's penchant for pranks, I must admit I did check this out with Ubisoft more than once. It looks like it is. Merrick Watts and Tim Ross will join a cast including David Duchovny and 60's Batman, Adam West.

**"It's not the first time we've been involved in games. I was the model for Duke Nukem and, of course, Rosso is famous for his work as Lara Croft"**  
- Merrick Watts



## USE P2P, GO TO JAIL

### KaZaa users versus the might of US legislation

Anthony Fordham

**T**he US government is currently toying with the idea of introducing jail terms for music enthusiasts caught trading MP3s over peer-to-peer file sharing networks such as KaZaa.

Oddly enough it's Democrat congressman Howard Berman who is championing these harsher penalties, and he's teaming up with House Judiciary Committee Member John Conyers (also a Democrat) to put the pinch on the kids.

"While existing laws have been useful in stemming the problem [of file sharing] they simply to not go far enough," he says.

The plan is to assume that any P2P trading involves more than ten copies of the file being exchanged, and that therefore the copyright theft represents a loss of US\$2500 to whichever poor downtrodden music megacorporation the file 'belongs' to.

At US\$2500, this makes the theft a felony under US law and can therefore attract a jail sentence. Critics are mystified at how any single music file could be considered to be worth US\$250 on store shelves, but the recording industry is understandably running scared in the face of seemingly unstoppable file sharing, and desperate times call

for crazy-arse measures.

Closer to home, the universities of Sydney, Melbourne and Tasmania are currently under fire from Sony, EMI and Universal over alleged suspected music piracy on uni networks. The record companies say that a "routine check of Internet usage" has shown possible pirate activities, and the unis have subsequently been ordered to hand over hard drives, CDs and documents to an "industry expert" to determine whether naughtiness has been going on.

The escalating litigiousness of the US recording industry has even prompted cyborg, baby-killer, nutcase Michael Jackson to release a statement saying he is "speechless" at the new proposed laws. The only positive to come out of this mess.

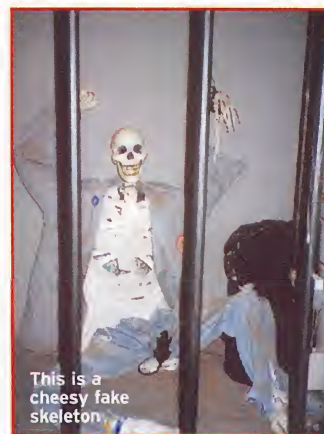
Meanwhile, the logical extension of all this hullabaloo is that the RIAA will mass-criminalise tens of millions of US citizens (and more than a few Aussies) and turn the US into little more than one giant penal colony. Though, surely it could never go that far now, could it?

#### A BIG SIEGE-LET

Legends of Aranna is the name of the upcoming expansion pack for Dungeon Siege set for release in November this year. Aranna is apparently a tropical island boasting a new jungle tileset, plus the predictable new story, characters, weapons, etc. There's even word of a new pack animal that can join your party alongside the mule. Lordy!



This is a cell of girls caught trafficking 28MB worth of MP3 files - more than can be considered for just 'personal use'



This is a cheesy fake skeleton



# CORE DEPARTURES

## Lara Creator Steps Down

Timothy C. Best

The 'father of Lara', Jeremy Heath-Smith, has stepped down from his positions on both boards of the games publisher, Eidos, and game developer, Core. Heath-Smith was one of the creators of Core's amazingly successful character, Lara Croft. He was also the head of development there before being put out to pasture.

Eidos only put out a very brief release about Heath-Smith's departure, thanking him for his seven years work. Rumour has it that Core employees knew nothing about his removal until they read the press release a few hours before it went public at a meeting Heath-Smith didn't attend.

The likelihood of coincidental timing between Heath-Smith leaving and Tomb Raider: Angel of Darkness being released in the same month is pretty slim. The game was plagued by delays, with the last one forcing the release to come out four days after the end of the financial year. This might not sound important, but it led to the profits for 2002-2003 to be revised down (in the order of tens of millions) and contributed to Eidos shares falling by an

impressive 10 percent.

Now that the game is out, it has been coping a panning by critics for poor control and an assortment of bugs.

It is unclear whether Heath-Smith resigned because Eidos forced him to release a game well before he was happy with it, or whether he was the sacrificial lamb to appease angry shareholders. His brother, and co-Lara creator, Adrian Smith, is still working at Core and hasn't made himself available for comment.

Obviously, someone needs to take responsibility for Lara's lacklustre showing, particularly after squandering all the projected hype and possibility. Despite these shennanigans, Lara Croft's appeal hasn't dimmed as there is increasing interest in the upcoming movie.

A little new blood at the top definitely couldn't hurt the Lara franchise, but it seems sad to think Heath-Smith may have been hit with a double whammy: Eidos booting him out for missing one too many deadlines and then being hammered by gamers because Angel of Darkness was a disappointing rush job.



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# Copperhead: Retaliation

## DUNGEON SIEGE

For: Dungeon Siege ■ Version: Final ■ Size: 79MB ■ Rating: 4/5 ■ URL: [www.planetcopperhead.com](http://www.planetcopperhead.com)



**E**very now and then a mod comes along that far outstrips the gameplay of the original game - both Day of Defeat and Counter-Strike have this honour, taking the fun but limited multiplayer of Half-Life and improving it to the Nth degree. Now Copperhead: Retaliation can be added to that list, taking the glorified screen saver gameplay of the innovative, attractive and ultimately dull Dungeon Siege and converting it to a fun and addictive story about warfare and revenge in the depths of space. Featuring all new models, weapons, missions and meshes, Copperhead injects much needed gameplay into Dungeon Siege by including larger areas to explore, better enemy AI (each different enemy type has a different attack pattern and habit), 17 new ranged weapons and an innovative implant system instead of the standard levelling grind. Although the levels are still by and large made up of narrow corridors (such is the downfall of the Dungeon Siege engine), Derek Warner and crew have created maze like maps of many interconnected corridors, allowing for players to explore to find a wealth of hidden goodies. Instead of a standard levelling system, Copperhead characters have four implant slots, allowing players to modify their character by mixing and matching implants found throughout the mod. These implants take the form of armour, hit-point/attribute power ups and can be rearranged at any time.

## A word with DEREK WARNER

### Why did you begin modding in the first place?

I started modelling because I really love games and have always wanted to create my own game. Though I'm an artist/designer and not a coder, modding was the closest thing towards that goal. I've been doing mods for quite a while, but most I don't release publicly, because they were all done just for fun.

### Why Dungeon Siege?

I went and wrote up an evaluation of all the moddable engines that were available in September 2002 when I decided to start this project. Dungeon Siege was the most moddable and could do the things I wanted to do. Using 3DS Max was a must, and I could import models into Gmax from 3DS Max so Dungeon Siege made sense. If I was to start a new mod project I'd either use Unreal 2K3 or wait for HL2 engines.

### Copperhead is one of those rare mods that are actually better than the game it's built on - any plans for doing more in the series?

Right now there are no new plans. I just took a job at Sierra Entertainment as a 3D Artist and will be quite busy for a while. We'll see what happens in the future. Though, I wouldn't be surprised to see Copperhead again someday.

### Any advice for wannabe modders?

Plan. Plan. Plan. Working on these projects takes a lot of organisation to understand what needs to be done and where you are at in a development cycle. The more you plan the better and faster everything will come together. Even with my project, I think if I did even more planning of what exactly was going into it I could have gotten a better mod.

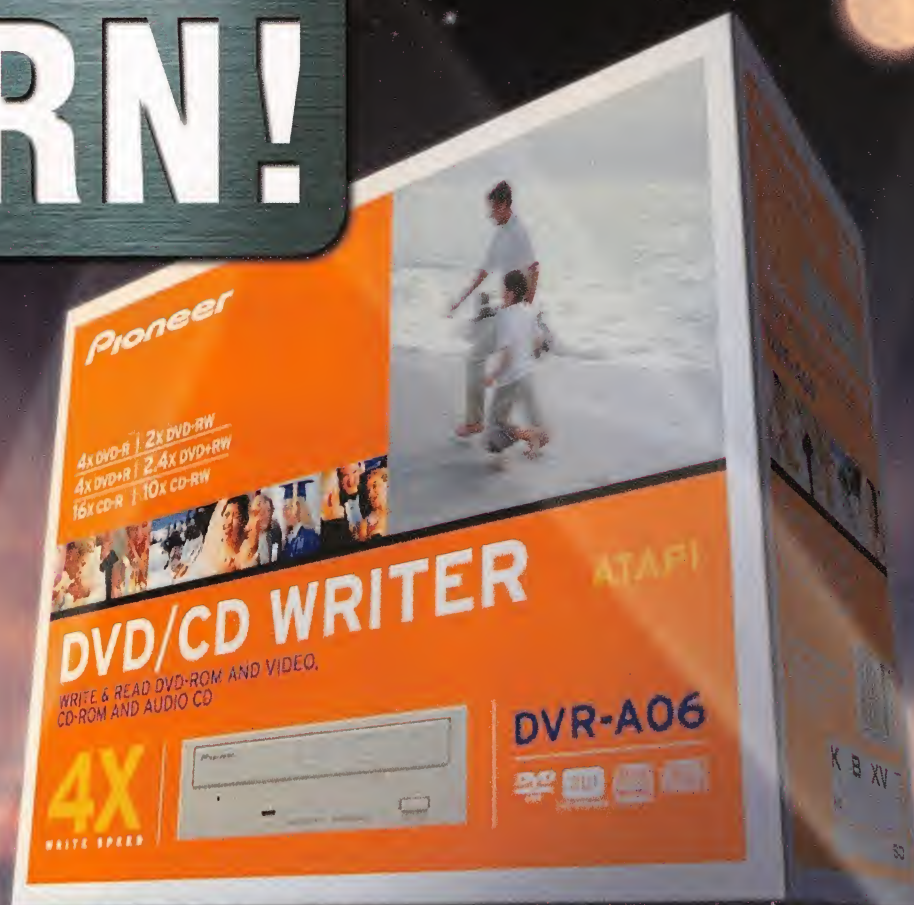
### Any last things you'd like to say?

I have to say mod projects have really come a long way over the years and even now begin to take shape somewhat of an independent film form. If its any indication, the NVIDIA contest for Unreal mods offering money for good mods is a sign, I think that not only in the future will mods become a valid part of the industry, but also can make the independent developers some extra cash on the side and a great way to get noticed in the industry.





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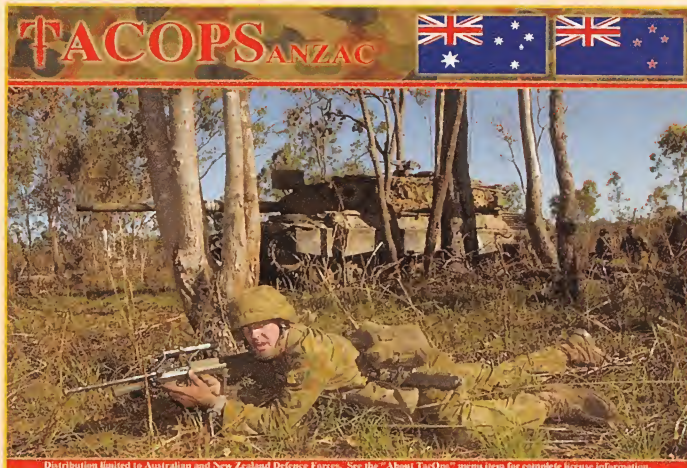


# GARAGE GAMES

Into the unknown with George Soropos

## TACOPS 4.0

Developer: Major I.L. Holdridge USMC (ret.) Genre: TBS URL: [www.battlefront.com/index.htm](http://www.battlefront.com/index.htm)



**T**his month's we focus on TacOps 4.0, a solo effort and labour of love for Major I.L. Holdridge USMC (ret.) TacOps 4.0 from Battlefront.com is a seriously hardcore military strategy simulation. It is currently the main tactical simulation tool at the Fort Knox Armour Academy used in training US Marine Core officers and has also just been purchased by both the Australian and New Zealand armed forces for use in officer training.

As you can see from the 'grabs TacOps is presented in a board game style with tactical maps providing the backdrop for the action. The offers a wide array of options, but thankfully also includes a comprehensive PDA guide book to help you along the way to tactical greatness. Training scenarios are also included to guide you through the more complex tasks, and the interface is also well thought out giving easy access to the game's functions. The full version of the game, available from Battlefront.com, also includes a massive database of equipment, weapons and vehicles with detailed descriptions and pictures of each item.

The beauty of TacOps is in its' detail and the expertise behind its'

development. The game has been growing since the first version was released in 1992 and has been highly refined and perfected in the meantime with regular data updates, AI improvements and the inclusion of work added for specific contractees.

One of the strengths of the game is its' network/internet play, something for which it was designed for long before the concept of massively multiplayer online gaming became popular. The civilian version of TacOps supports up to 20 players in a single game divided between up to eight different combatants. The military versions can support up to 50 players. The online game has also been moulded into something called Global Thunder (<http://www.battlefront.com/resources/tacops/MBX/Globalthunder/index.html>) a continuous series of combined arms online war scenarios (or MBX in military terms) run by Battlefront.com that players can join for free. Global Thunder is similar to the kind of training operations used by the military and gives civilian gamers a chance to take part on large scale operations where team communications and planning are essential. There is

also a fun side to the Global Thunder on the 'ENN' site where war news is relayed to the 'troops'

In over ten years of constant development there has only been one name behind TacOps, Major I.L. Holdridge USMC (ret.) Major Holdridge is a 20 year veteran of the Marine Corps who started game programming in 1976 on an Apple II as a way of easing the workload of his board gaming activities. The first military personnel to play Holdridge's games were his Marine buddies but word soon spread about the game and by '96 people were dropping by his office looking for ways to supplement the expensive Department of Defense simulators already in use by the US Army.

### Developer Dialogue

We asked Major Holdridge how his obsession with TacOps began. "After I retired from the Marine Corps in 1990 I went to college for a couple of years but quit when I decided it was interfering with my war gaming. I then increased my credit line on four or five credit cards and started working on TacOps v0.0 full time in 1992."

**A pretty brave move for such a commercially suspect game, did he have military customers in mind from the start or was it a case of just doing something that he loved?**

"Well you have to understand that the games business was quite different back then. In 1993 I hooked up with

Arsenal Publishing for TacOps v0 for the Macintosh and a Windows version followed in 1996. Arsenal faded away in 1997 and TacOps moved to the Avalon Hill Game Company. Avalon Hill was swallowed by Hasbro in 1998, a period of change in PC gaming when 3D accelerators were taking over, and TacOps marched on to Battlefront.com. So there has always been a desire to make a living as well as do something I love!"

**With the Australian military now a customer we wanted to know if there are any significant differences between the military and civilian versions of the game.**

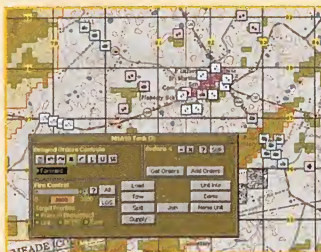
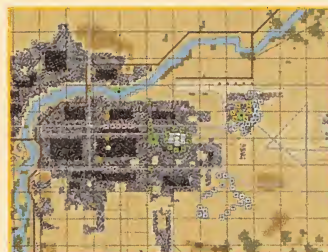
"The AU/NZ military contract version of TacOps will have additional unit types that better represent the current AU/NZ order of battle. Other unspecified AU/NZ oriented tweaks will likely be added during the military testing and debugging phase of the contract. I expect that most of the AU/NZ military sponsored changes will eventually also appear in the public retail version of TacOps."

**We always like to ask developers which games they play when they aren't working on their own**

"This may stun the TacOps faithful but my current personal choice for mindless, relaxing diversion is "the Sims" - which, by the way, I think EA almost ruined with the additional work load that accompanied the "Hot Date Expansion Pack" but that's another story. "Yo babe ... wanna go downtown with a jarhead?" :) Australian and New Zealand military personnel who wish to obtain a free copy of "TacOps ANZAC v4" can contact its developer at [majorh@satx.rr.com](mailto:majorh@satx.rr.com). He will forward their request to the appropriate offices in the Australian and New Zealand armies."

### LIVE FOR SPEED UPDATE

Our very first Garage Game, Live For Speed, had it's first release on July 18. The S1 release was a great success and quite a few local league servers have popped up already. If you haven't done so already try out the free demo at: [lfs.racesimcentral.com](http://lfs.racesimcentral.com)





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**Q. Why isn't a mouse and keyboard good enough?**

Thrustmaster Comp  
PC PowerPlay  
78 Renwick St  
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YOU'VE GOT NOTHING TO LOSE BY ENTERING, BUT REMEMBER: YOU NEVER KNOW WHAT YOU'VE GOT UNTIL YOU LOSE IT.

## 6 COPIES OF PIRATES!

Thanks to Ubi Soft, we have six copies of the new role-playing game, Pirates of the Caribbean, to give away. Originally conceived as the sequel to Sea Dogs, this swashbuckling adventure now sports a tie-in with the upcoming film of the same name.

To win, answer this question on the back of an envelope:

**Q. Why was Roger so jolly?**

Pirates Comp  
PC PowerPlay  
78 Renwick St  
Redfern NSW 2016



DON'T FORGET TO ENTER! AND DON'T FORGET THAT A JOURNEY OF 1000 MILES BEGINS WITH A SINGLE STEP.



# DEVELOPER DIARY

## BROKEN SWORD: THE SLEEPING DRAGON ENTRY: #4

With only a couple of full months left in development, all the elements of Broken Sword: The Sleeping Dragon are now coming together. More so than with any other genre, adventure really needs all the components to be in place before a true representation of the game can be gauged. Currently, the programmers are completing the special effects technology including particle effects that create steam and smoke; the artists are tweaking the light maps to maximise visual interest; music is composed and sound effects are implemented; and testers are comb-

ing the game for bugs and inconsistencies. But the biggest single leap forward in the 'look and feel' is the inclusion of voices. Although it should be obvious, I still find it amazing how the inclusion of speech has added so much to the game.

We scheduled the voice recording for five days, however, the production company we worked with warned us this was a tight deadline - they had estimated a script that size would require an eight-day session. Surprisingly, we finished ahead of schedule, which is unusual in the business of video game development. It took a total of four days of starting in the morning and finishing up in the afternoon.

There are several reasons for this early completion. The cast in The Sleeping Dragon is incredibly strong and they really gelled during the recording sessions. The actors all praised the quality of the script, which they said was great to act out. When recording the voices for a video game, many voice directors choose to record the lines of each character sequentially, which means the actors don't get the opportunity to act together. Obviously, this saves

money because actors spend less time in the studio. However, because the relationship between the characters is so important in a game like Broken Sword, we have always felt it vital to have the scenes played with all the relevant actors together. We therefore decided to record the voices much like one would a radio play with the actors playing scenes against each other. What this allows is for the actors to really get into their roles, and it often resulted in highly animated sessions complete with body gesticulations.

Initially, things didn't run smoothly. On the first morning, the cast was assembled and ready to go - with one rather important exception: Rolf Saxon, the voice of George, who wasn't there. So I called him to see if there was a problem. There was. Due to some miscommunication that was neither his fault nor ours, the date was mixed. Unperturbed, he hotfooted it to the studio and it turned out brilliantly. Rolf really got into the part of George and was an inspiration to others.

The full script runs a total of 6,000 lines - about the same amount of dialogue as Broken Sword 2. We think it's a good balance between ensuring that the narrative and characterisation are conveyed without being overly 'wordy'. Some games run to 12,000 lines, which I think is excessive.

Whilst the voice of Rolf has remained a constant throughout the series, one important element has changed. Indeed, this iteration sees our third Nico voice, this time played by Sarah Crook.

We discovered Sarah by chance. About a month before the recording we held a casting session at a studio called The Spotlight in Leicester Square in London. We auditioned a number of actors for the different parts - and the overall quality of those auditioning was extraordinary. However, as it was particularly important to find a great Nico we had to turn down a number of great actors. Originally, I had thought we should find a native French speaker who would bring an authentic accent - it might be a stereotype, but I think the female French voice can sound very sexy. However, as the day progressed, I realised the diction of a native French speaker isn't as clear as someone speaking in English with a French tinge. Ultimately, we decided a native English speaker who could convincingly

add a hint of French (without sounding like a character from the TV show, 'Allo Allo') was the best option. One of the native-French actresses who was auditioning for the part walked into the room to be confronted by four chaps sitting around a desk. Without missing a beat she exclaimed in a strong French accent, "So many men, so little time...." Which was brilliant, of course. But a little too raunchy for Nico. By the end of the session we were not convinced we had heard anyone who was perfect for the role. There were a couple of young ladies who were helping to organise the audition and at the end they asked whether they could read for the Nico part. Sarah was given the part and turned out to be fantastic.

Rolf and Sarah worked very well together. There was a real spark to their dialogue, which was important - especially for the not-to-be-talked-about finale.

It's strange getting actors to record dialogue out of context. Possibly, the only real hold-up during the whole process was when Rolf and Sarah were recording the lines to a sequence in which they must both co-operate in order to enter a particular building. They got the giggles for 10 minutes at one point, which mystified me. What's funny about the lines: "Hey Nico, come and hold this, whilst I shove the rod in", to which she replies, "I'm not going to stand here holding it all day". I will never know.

Until next month.  
Best,

Charles





OzForces [CLA] Alfred



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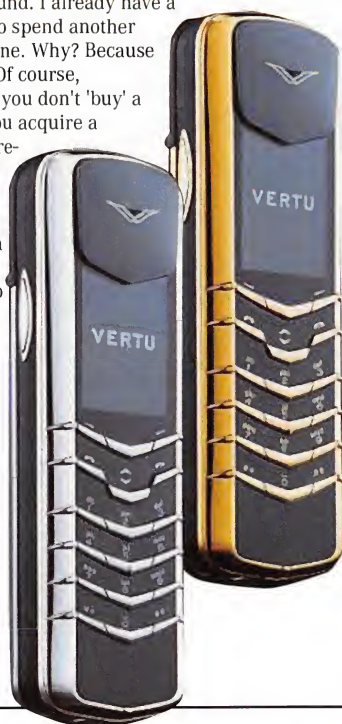
# HOTWARE

All the bits that we cram in at the last moment with Anthony Fordham

## VERTU MMII

Price: \$35,000 Distributor: Vertu Contact: [www.vertu.com](http://www.vertu.com)

Enough mucking around. I already have a car, so now I want to spend another \$35,000 on a mobile phone. Why? Because I'm that kind of person. Of course, according to the website you don't 'buy' a Vertu, you 'acquire' it. You acquire a platinum-bodied, sapphire-crystal faced, jewelled-bearing-ed \$35,000 mobile phone. Rene Rivkin has one. There's a button on it that connects you instantly to a personal concierge who can get you good prices on Rolls Royces and Lear jets. Even the carry case is made from a virgin's skin, or something. At last, definite proof that the world is insane. Of course, if sapphire-crystal screens aren't enough, you can get one of Peter Aloisson's ugly-arse diamond encrusted Motorolas for about \$80,000. Next!



## SAMSUNG SCH-X820 TV PHONE

Price: \$900 Distributor: Samsung Contact: [samsung.com.kr](http://samsung.com.kr)



Yes, there are a million new phones released every week, why pick this one in particular? Because it has a built-in TV tuner, and that's very, very cool. Keep up with the footy on a 176x200 pixel screen that can be run in portrait or landscape mode for a slightly bigger picture. Receive all the free-to-air channels without paying a cent to those weird streaming TV providers that some phones support. Impress your friends. Bump into things on the street. The phone also includes all the usual guff like GPRS Internet, polyphonic ringtones and a second screen on the outside with a clock on it.

## GAINWARD GEFORCEFX ULTRA 1200XP

Price: \$650 Distributor: PC Range Contact: [www.pcrange.biz](http://www.pcrange.biz)

Can you look us in the eye and say you've ever seen a videocard that looks this cool? I mean, red flames! Double fans! At last, a reason to be glad that NVIDIA had to stick a stupidly huge cooling solution on the GeForceFX 5900 Ultra. Remember, as last month's issue showed, this card is slightly faster than the Radeon 9800 Pro, so not only does it look fantastic, it has the performance to back it up! It's good to see some bright, fire-engine red splashed about on a card for once. Combine it with a case with windows on the side, top, back and front - hell, in an all acrylic case - and your friends are GUARANTEED to look at you in awe! (Not a guarantee.)



## COOLERMASTER MUSKETEER

Price: \$66 Distributor: Cool PC Contact: [www.coolpc.com.au](http://www.coolpc.com.au)



A retro-styled monitoring device for high-end 21st Century PCs, called a Musketeeer. Hey, at least we're embracing a decent spread of history. The Musketeeer gives fairly traditional readouts for voltage, temperature and audio levels, and also includes a couple of groovy sliders for fan speed adjustment. But as you can see, the styling evokes the era of muscle cars and the dismal failure of EA's Motor City Online. The whole kaboodle is wrapped in a nicely machine-finished black metal case and simply bolts into an available 5.25 inch bay. Looks particularly good in black cases. Oh yes, and the gauges light up blue.



## TDK NX-03CD

**Price:** \$399 **Distributor:** TDK **Contact:** [www.tdk.com.au](http://www.tdk.com.au)

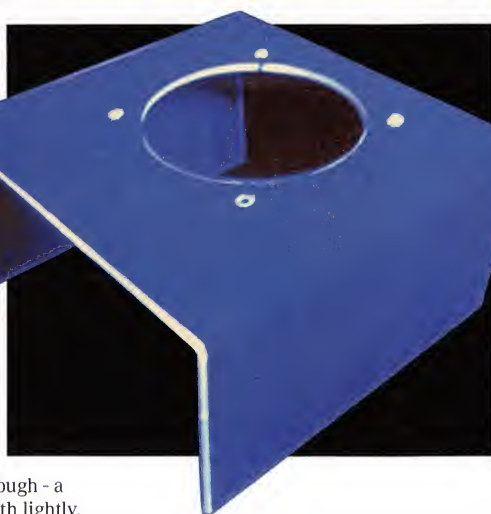
After toying with drives for PCs and its own line of flat panel speakers, TDK has finally taken the full hardware plunge and released its own stereo mini system. The groovy thing about the ungroovily named NX-03CD is that it's very, very flat. This is largely thanks to slightly beefier versions of the flat panel speakers found in TDK's range of IMASPEAKER CD cases. You can bolt the thing to the wall and pretend you own some kind of ultra-expensive Bang & Olufsen boutique system, especially if you point out to your friends the motorised CD bay door. Includes an AM/FM receiver, as well as a single CD tray and, for the likes of us, is naturally CD-R and CD-RW compatible.



## UV PSU MOD

**Price:** \$12.50 **Distributor:** PC Caser Gear **Contact:** [www.pccasegear.com.au](http://www.pccasegear.com.au)

For less than the price of a movie ticket, why not turn your butt-ugly PSU into a glowy love box of delight? This plastic housing replaces the case on your PSU and fluoresces a bright blue under UV lights, which can be installed in your case separately. If you've already got UV EL wire, UV IDE cables, UV fans, and a bioengineered UV killdog called Mauler the Actinic, then this simple mod is a must for your ultra-glowy case. Impress your friends by blinding them. Recreate that authentic 80s disco feel in your own PC workspace. Mind the lethal electric shocks though - a PSU is not a device to be toyed with lightly.



## MSI MEGA PC

**Price:** \$660 **Distributor:** Aus PC Market **Contact:** [www.auspcmarket.com](http://www.auspcmarket.com)

As mentioned in previous issues, having a dedicated DivX and MP3 machine in the lounge room is a cool idea, but most cases look too pig-ugly or weird to nestle alongside your DVD player and ancient VCR. Please, then, give a warm welcome to the Mega PC from MSI. The clever thing is, it's not mega! It's really tiny, and takes Socket 478 Pentium 4 processors and suitable DDR memory. Unlike some ultra-small form factor PCs, the Mega PC includes a 4x AGP slot, allowing you to include a relatively beefy card with TV-out, making this little device an ideal lounge room companion. There's also a very cool LCD display on the front to give the whole thing that K-Mart mini Hi-Fi system look.



## GMC X-21 TRINITY

**Price:** \$175 **Distributor:** PC Case Gear **Contact:** [pccasegear.com](http://pccasegear.com)

The quest for the finest black case in Christendom goes on. The latest entry, the GMC X-21 Trinity from those fine folks in South Korea, goes for the hardcore server look rather than the concert piano look seen in the likes of the Antec Sonata. "We only provide you with the chosen few great machinery (sic) corporation," says GMC. And why not? The Trinity is all black, of course, except for a strip of mirror on the front bezel that holds the very nicely appointed power and reset buttons. The case is tricked out for silence with insulating sheets and shock absorbent pads for everything from the HDD to the PSU. The screws are even colour-coded so idiots don't get confused. And with 10 bays on the inside, the case includes a nifty switch to swap between three boot drives - it's like having three identical PCs with a third of the disk space each instead of one giant PC with three times the disk space! Oh yes, and of course it goes without saying: black good.



## 3.5" RHEOBUS

**Price:** \$31 **Distributor:** PC Range **Contact:** [www.pcrange.biz](http://www.pcrange.biz)

A fairly straightforward product this one. It allows for the control of four case fans to either minimise noise or maximise cooling. There are plenty of rheobuses on the market, but this one is only 3.5 inch model that you don't have to assemble yourself with a glue gun and a soldering iron, so you can slip it in that useless second floppy drive space and leave the 5.25 inch bays free for crazy monitoring devices, such as the CoolerMaster Musketeeer. Oh yeah, and the knobs light up in a variety of colours. Face it - if your tech don't light up, it ain't good tech.



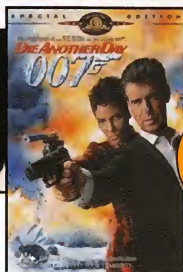


# CINEMAWARE

For when you want to watch instead of play...

## Die Another Day

Distributor: Fox ■ Classification: M

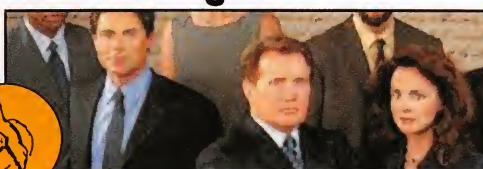


Oh Gawd, yet another bloody Bond film. Number 20 in fact. Thankfully, DAD is a fairly entertaining outing for 007, but you'll need to suspend your disbelief to make it through some of the over the top action scenes. Audio and video quality on this DVD is superb,

with support for DTS ES 6.1, and a second disk packed full of special features. In fact, there are far too many special features to list here; no doubt Bond fans will appreciate each and every one. **BR**

## West Wing 2

Distributor: Warner ■ Classification: PG

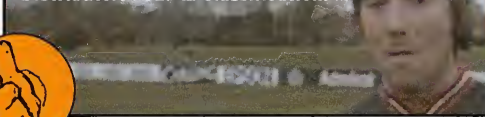


Very few among us are little more than political ignoramus so to label The West Wing a top political drama is to deprive many of a well written comedy with strong cast. Luckily many have looked past the label and become addicted to this series with its controlled chaos and

rapid-fire dialogue. Season Two deals with the physical recovery of Josh and mental recovery of the White House staffers after an assassination attempt on the President, plus more! **VM**

## Mike Bassett: England Manager

Distributor: FCEF ■ Classification: M

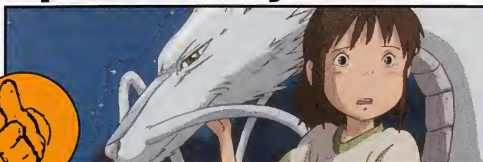


When only a mathematical anomaly can help you qualify for the World Cup, your manager is caught in a bizarre near naked Sinatra croon and you're playing the 4-4-2, which team would you be? Yes, England! Taking us back to the days of Keegan's reign in the number one position, this

movie is a well-produced mockumentary about England's struggle to make it to the World Cup after their manager suffers from a heart attack. **VM**

## Spirited Away

Distributor: AV Channel ■ Classification: PG

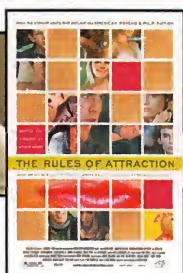


While the 'Asian Walt Disney' tag seems to have been final shrugged off, many have now latched on to Hayao Miyazaki as today's Lewis Carroll as they discover the beauty and wonderment of his work through Spirited Away. Miyazaki has once again taken to a place of childhood

dreaming with the use of his favoured themes of metamorphoses and enchantment and created a film that will be enjoyable for all. Creating my number one film of 2002. **VM**

## The Rules of Attraction

Distributor: Warner ■ Classification: R

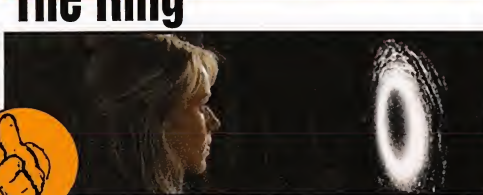


When I first read they were going to immortalise yet another Brett Easton Ellis on celluloid I cringed. Previous attempts having been nothing short of abysmal and they now planned to fill the cast with out of work teen actors (James Van Der Beek, Jessica Biel). But

to doubt the likes of Roger Avary (Killing Zoe) is to make a big mistake. The actors sell this story. Told from three distinct points of view, Avary has captured it admirably. **VM**

## The Ring

Distributor: Universal ■ Classification: MA

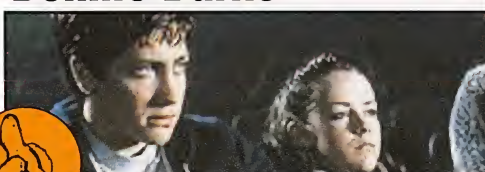


The Ring was never meant to be your typical teen horror film. With the story and dialogue taken from Hideo Nakata's Ring (1998) creepy doesn't quite capture how unnerving this film can be to the unsuspecting audience. With surprisingly good acting and a

script that isn't dumbed down, The Ring does not resort to unnecessary gore, instead it places the viewer in an uncomfortable place where to feel suffocated is the norm. **VM**

## Donnie Darko

Distributor: AV Channel ■ Classification: M

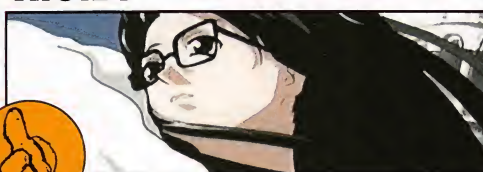


After an airplane engine lands on his bedroom, Gyllenhaal starts up a relationship with a giant bunny creature and searches for answers to the time-space continuum. Sound confusing? Writer/ Director Richard Kelly's debut feature film doesn't revert to horror to

carry the angst and indecision of aptly named high schooler, Donnie Darko. Instead, the unknown and unseen lend your imagination to the worse while hoping for the best. **VM**

## R.O.D.

Distributor: AV Channel ■ Classification: M



Read or Die tells the quirky tale of Ms. Yomiko Readman as she battles criminals who are bent on obtaining a long lost manuscript. As a Section A Library Special operation she has to battle clones of historical figures - Ludwig von Beethoven, Mata Hari - after

a criminal raises them as supervillains. And while it may seem that I am making this up to fill space I couldn't conceive of advancing the story to the places this anime goes. **VM**



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# Licentious behaviour (or to boldly sue...)

**I**'ve never quite come across anything like the lawsuit Activision is bringing against Viacom, but I'm glad that I have. Activision is planning to take Viacom to court for making Star Trek suck.

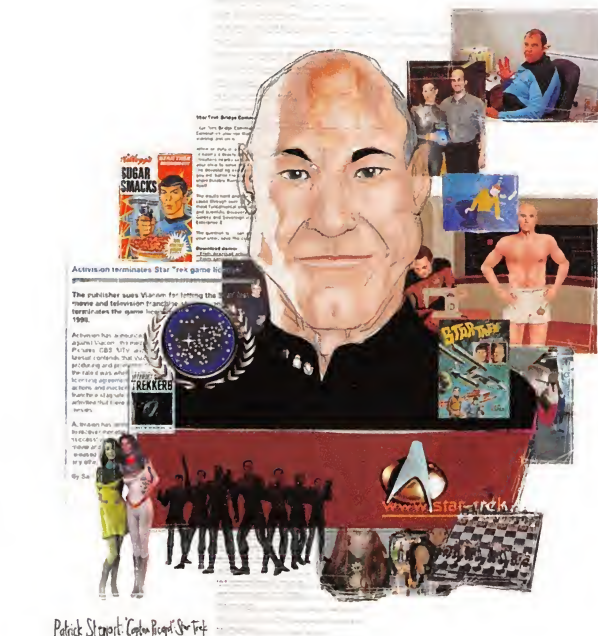
I don't know how many times I've wanted to sue someone for emotional damage after my brain recoils in horror from something so poorly executed that a smart alec six-year-old could pick it apart. The distress is that much greater when something that was good (like Star Trek) stocks up on crappiness like Aaron Spelling having a fire sale.

Activision is obviously fed up with this descent and had issued a statement saying, "[Activision] cannot successfully develop and sell Star Trek video games without the product exploitation and support promised by Viacom. A continuing pipeline of movie and television production, and related marketing, is absolutely crucial to the success of videogames based on a property such as Star Trek."

Not only does Activision want out of their 10-year exclusive contract that obligates them to pay Viacom roughly \$3 million a year for the sole right to produce Star Trek games, it wants damages as well. This basically says Viacom has made the franchise so lame it has cost Activision money. Ouch.

Viacom has fired back by saying it is disappointed in Activision and Star Trek is perhaps the greatest intellectual property to ever come from TV. It cites a 35-year history, more than 650 episodes in worldwide syndication, 48 million videos sold and a series of 500 books as proof that Star Trek is still a force - without a single reference to the performance of Enterprise or Star Trek: Nemesis. That is like saying that Mohammad Ali could win back the heavy weight title tomorrow using fight footage from the 60s as evidence. Keep in mind, Activision has to pay nearly \$3 million a year for this licence, so the stakes are high.

There is little argument that Star Trek has been sliding in the past few years. The series was founded as the Cold War was cranking up and featured a crew drawn from many nations and races, and included both sexes operating in a place where everyone not only got along, but also worked for the greater good - it was a show based on human potential.



The pilot even featured aliens that controlled people through illusion, which could have been a poke at governmental control or the narcotic power of television. It was good sci-fi.

Fast forward to the late 90s and things begin to go awry. To cash in on a more hip and gritty sci-fi style, DS9 plunged the Federation into another war, which put them out of their depth. Instead of pulling together and coming up with an innovative or self-sacrificing solution, the writers turned to a black ops section within the Federation that had secretly administered the Federation's dirty work for years, thus unwittingly exposing the ugly machinations behind the maintenance of high ideals. The series ended with Section 31 using covert germ warfare to win the war. So much for human potential.

When Voyager ratings dipped, the writers did what any top-notch team of intellectuals and futurists would do: they wrote in a babe in a skin-tight uniform. No argument that Jeri Ryan is hot, but this is where the smart alec six-year starts asking tough questions about high heels in combat situations.

I'm going to be kind to the latest series, Enterprise, just by saying that its ratings aren't exactly rocketing up the charts - and that's something not even Jolene Blalock's stellar form can fix.

To round out the catalogue, we have the movies. The first appeared in 1979 and since then we have been treated to a Star Trek movie every two or three years without fail, until now. In the past five years since Activision signed on the line, there has only been the one with no plans for a second. All in all, Trek seems to have boldly gone where

a lot of crap has gone before.

In a game development sense, the real problem here goes beyond Star Trek unable to kick stronger game. Just look at the language of Activision's claim:

Viacom has failed to "exploit" the franchise and Activision "can't" make successful games without this exploitation. What is that?

Even when the series was going strong, most of the games were set to suck and that's why people didn't buy them. The problem with licences is that developers try to exploit them rather than enhance them.

Let's look at Star Wars for a second. Even with the new movies getting a panning from critics and fans alike (please, please, George, let someone else direct and get some help with your romance scenes), the games are going stronger than ever. Star Wars Galaxies just had an unprecedented launch with minimal hype; the Jedi Knight games have a proud history and the X-Wing series battled Wing Commander for top space fighter for many years after the original series and before any new movies were announced.

Star Wars is about sweeping David and Goliath action and between good and evil, themes that fit into the games like a pair of snug black gloves.

That's not to say that making good games is enough. Elite Force, Bridge Commander and Star Trek Armada were all good games, but they missed the money train because Trek was never about the fights, space combat or technology. These are just material concepts that added tension to a story: hmmm, we need a big threat ... okay, let's drop in a new ship Enterprise obviously

can't take in a fair fight, but one they might beat by overcoming their fears, working together and inverting their deflector array... you get the point.

If Viacom is doing such a bad job with Star Trek, doesn't that mean there's a huge fan base of Trekkers starved for good content?

With access to the whole Star Trek series there's no way you need the Enterprise to make it big. If the fans stayed loyal over the 12 years between the original series and the Next Generation, brand recognition is hardly going to be a problem. Why not fill in some of those Original Series blanks and get in some of that retro 60s feel that powered the No One Lives Forever franchise?

If you really want to make a true Trek game, then you start with a RPG game where players choose their race and skills and work their way up through the ship's crew, facing a combination of scripted and randomly generated events. You would need to interact with other crew members, form friendships, practice on the holodecks and make moral decisions.

If a threat surfaced, you would then need the chance to develop a special technology which would lead to sub-quests and mini-games. Or perhaps diplomatic resolutions would be the only way forward? The game would be much more like Deus Ex, Republic: The Revolution or The Sims and less like Quake, Unreal or Wing Commander.

Trek is so big with such a massive following there has to be a home run out there just waiting to be hit. Again, the trick is to enhance the universe, not exploit it.

When a giant and talent-packed game company like Activision comes out and says it can't sell its Trek games without The Next Big Thing whipping fans into a frenzy, you know what aims they had.

Overall, there are three major lessons to learn from all of this:

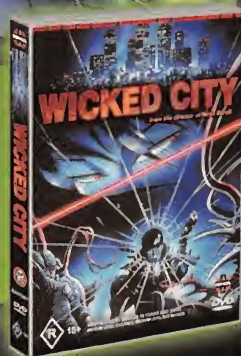
1. You are not alone in thinking Star Trek is getting worse. The truth hurts.
2. All that glitters is not Gold Press Latinum - so make sure you know exactly what you are getting and how tricky it will be to convert into US dollars.
3. When you are counting on The Next Big Thing to sell your games, you had better make sure that it is actually coming... or you have good lawyers.



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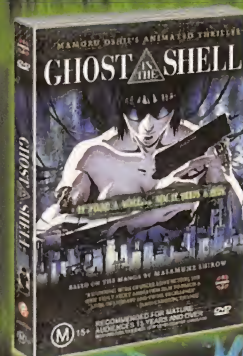
## NINJA SCROLL

The bloody,  
controversial and  
scintillating sword  
play tale



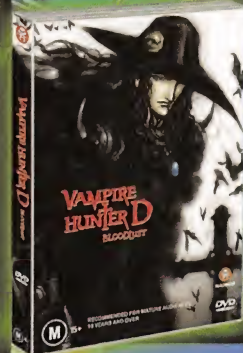
## GHOST IN THE SHELL

The inspiration behind the  
original Matrix, from  
Mamoru Oshii. An anime  
classic and the ultimate  
sci-fi thriller.



## VAMPIRE HUNTER D BLOODLUST

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hunter tracks a  
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## COWBOY BEBOP

It's about collaring villains  
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TECH TALK Stuart Calvin

# A burning desire for DVD backups

**R**ight about now, DVDs are terrific fun. And I mean real fun. I am very impressed by the nine DVD writers we recently tested and, truth be told, I'd have any one of them. I'm looking forward to reviewing the LiteOn dual-format unit in due course and I'm especially looking forward to the Ricoh MP5240A-DP, which can now rewrite on +R(W) at four times speed. This means that 4.38GB of precious data can be backed up in less than 15 minutes and the disc can be re-used again and again. Partner one with Drive Image 7 and never lose a saved game again! The LG Multi is also looking very attractive at under \$400, but in the meantime, I'm making do with a Matsushita UJ-810 in my laptop. Bearing all this in mind, it is now incredibly easy to copy a DVD movie disc that you own and may be permitted to backup for safety reasons. Within an hour or so, depending on the power of your computer and speed of your DVD writer, you can record all features of an original DVD or compress a DVD-9 to a DVD-5, fitting each backup copy onto a single DVD recordable.

Followers of Oliver Kastl's Elaborate Bytes would have tried out CloneDVD by now and perhaps been initially disappointed. CloneDVD\* does not decrypt a DVD protected with the Content Scrambling System (CSS). Not including a de-CSS feature is a smart move by Olli considering the 321 Studios saga in the US. While most laws do not expressly prohibit the copying of digital works - only the distribution and use of tools that circumvent copy prevention technologies - it ultimately affects the consumer's right to copy DVDs, eBooks, and any other digital media that has been encrypted. 321 Studios believes consumers who copy DVDs for their personal use are exercising their right to 'fair use', which is an exception to copyright law that has been upheld by the US Supreme Court in order to avoid an irreconcilable conflict between copyright law and the First Amendment's guarantee of free speech.

321 Studios maintains those backup privileges should apply equally to all media, whether copying a DVD, a VHS tape, an audio CD, or a CD-ROM. The CSS scheme included on most Hollywood-produced DVDs requires a software key inside DVD players to view the underlying movie. Hollywood commentators say 321

Studios violated the law by distributing that particular key in its software, sold under such names as DVD Copy Plus and DVD X Copy. "What a DVD player does and what our product does are exactly the same thing," Daralyn Durie, attorney for 321 Studios, told US District Judge, Susan Illston. "The question here is not whether we have the authority. It's whether the users have the authority to access the content."

The Motion Picture Association of America (MPAA) is seeking a summary judgement against 321 Studios, claiming its products violate the controversial Digital Millennium Copyright Act law (DMCA) by circumventing the copy protection found on most DVDs. 321 Studios claims that its software allows users to copy only an original, but doesn't allow making new copies from copies and, therefore, only serves as a legitimate backup tool for owners of DVD movies. The MPAA counter-argues that it doesn't matter whether the user owns the original or not or what happens to the copy. According to the MPAA, the DMCA explicitly says all copy-protection circumvention tools are illegal.

Similarly, circumvention is illegal under the Australian Copyright Act. But as I have stated in the past, some sections of our Act are either contradictory or ambiguous, so don't go quoting copyright law if you want to flame me for talking about backing up a DVD.

321 Studios has based its company on two fundamental points: consumers have the right to protect their investment in their DVD libraries and that technology can help them do this quickly, easily and safely. To give 321 Studios credit, it has incorporated its own anti-piracy measures into DVD X Copy: an electronic watermark that can trace piracy; embedded code that prevents making a copy of a copy; and a public disclaimer electronically embedded in the backup copy of the DVD where in the first-play movie there is a statement from 321 Studios warning that the DVD playing is a backup (The functions for chapter skip and fast forward for this screen are disabled, so it's bleedingly obvious you're watching a backup).

At the heart of the matter is 321 Studio's use of a decryption technology called DeCSS that allows users to copy DVD movies onto recordable DVD and CD-R discs, despite the CSS encryption placed on the movies to prevent this sort of duplication. It goes back to October 1999 when San Francisco LINUX devotee, Andrew Bunner, posted a clever way to play and copy DVDs on his website. Bunner had nothing to do with developing the trick (but he's still in the court system). The original de-CSS was devised thousands of miles away in Norway. The architect was Jon Johansen, a Norwegian teen who invented a way to make DVD copies that would be compatible with the Linux operating

system. Interestingly, in January this year, a Norwegian court ruled Johansen had done nothing unlawful in creating a way to copy DVDs on his own computer.

Back to the 321 case, the contradictory nature of US copyright law was exposed when the judge asked what would happen to copy-protected movies after the copyright expires. The MPAA representative said that after the point of termination, such works would be publicly available. The judge replied, "But it's encrypted. If it doesn't stop being encrypted, it's still encrypted." This means that copying such works would be still illegal despite the copyright having already expired. Go figure.

While we're on the subject of DVDs, take the format war between DVD+R(W) and DVD-R(W). Many journalists, contributors, freelancers and other wannabes in print media rely on public press releases, vendor furnished white papers, Google results and breakfast cereal packets to write their articles, resulting in often superficial explanations and sometimes contradictory conclusions. The real problem here is that getting technical standards documentation requires money (a LOT of money) and Non Disclosure Agreements, so only a trivial amount of technical information about DVD formats can be found, for example, on the Internet. This is for the most part unfortunate, as it prevents journalists, techies and real world people from independently reviewing, comparing and selecting the best standard by themselves. Because they cannot access the technical details or perform meaningful scientific tests, some people prefer to carefully conclude there is no real technical difference between the two formats, and that if you forget all the marketing propaganda, plus and dash are equally good. A public paper, based on scientific reckoning, has been published at CDFreaks.com by Michael Spath, a DVD hardware engineer (not his real name). Does his company manufacture plus writers? We're not sure, but his CDFreaks posts under the nickname, spath, show some real objectivity and sound technical knowledge. Don't miss his article - you can decide for yourself!

\*DVD Decrypter, DVD Shrink and especially AnyDVD (Google is your friend) are now popular add-ons for CloneDVD.







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## THE GUERRILLA GAMER

# Breaking the spell of the almighty

**L**et's talk about id Software. Don't pretend you haven't heard of this company - these mega-rich college dropouts from Dallas, Texas, are the biggest fans of touch-me-don't-touch-me marketing in the business. By which I mean, id is a company that spends half its time shouting about how it more or less invented PC gaming, and the other half of its time refusing interviews.

So you think this is the bitter rant of a journalist stood up at more than one greasy, sooty Dallas cafe, huh? Think again. This is the bitter rant of a gamer who's sick to death of the pretensions of one company and its attendant sycophantic publisher, Activision, a marriage made in marketing hell where releasing three screenshots in two years is considered "amazing support for our fanbase."

The whole situation has been further exacerbated by the recent footage of Doom 3 seen at this year's Electronic Entertainment Expo. Frankly, after the likes of Half-Life 2, Halo 2 and just about everything else, Doom 3 looked about as good as a 3D-animated C-grade schlock horror movie made by film school dropouts who'd already run out of imagination. Doom 3 so far looks the same as Doom with snazzier graphics, so not only do you have to pay again for a game you already played ten years ago - let me say that again, TEN years ago - you won't even be able to play it unless you spend \$2000 upgrading your PC.

Doom 3 is merely the tip of the iceberg, however. You should visit [www.idsoftware.com](http://www.idsoftware.com) sometime. This company prides itself on its ability to work to its own timetables without pressure from publishers, and CEO Tom Hollenshead puts this down to the amazing skill of id's personnel. I put it down to id still charging for games it released when New Kids on the Block was a headline act.

Let's take Commander Keen: Invasion of the Vorticons as an example. This was a great little platformer distributed via the magnificent shareware empire of Apogee back in 1990. Yes, it's older than Wing Commander and considerably more primitive. It's a thirteen year old game. Chances are, this game was out when you were still



Todd Hollenshead, CEO, id Software

eating mud pies and learning to write the letter A in first grade (second grade for Queenslanders).

Anyway, id is still selling Keen on its website. How much, you might ask? For a download-only, thirteen year old platformer with EGA graphics and PC-speaker sound? \$25. Australian. Twenty-five bucks. For \$25 I could run down to EB and get myself a copy of Bandits: Phoenix Rising, which is a DirectX 8.1 game with snazzy car combat. I could get all the Ultimas 1-7. I could even get a Duke Nukem compendium that includes Duke 1, Duke 2, Duke 3D and a bunch of crappy thirdperson action shooters put out by desperate marketers. All of these games are better than Commander Keen. Does id honestly think gamers are so in love with their special brand of technological innovation and wild, cloying clichés that they will actually fork out a quarter of the price of Unreal Tournament 2003 on an EGA platformer?

The problem with id - actually the company has many problems, but the main problem - is John Carmack. At every id Software press event some goon in a suit - usually Tom Hollenshead - gets up and mumbles a few pleasantries about teamwork and how everyone in the company is part of a team and the whole is greater than the sum of its parts, yada yada, as a prelude to gibbering on for hours about how great John Carmack is.

Sure, he pioneered a lot of 3D work in games. He knew how to fake 3D before PCs were powerful enough to handle real 3D, and then once the Pentium popped up he developed the Quake engine and a whole industry followed suit. Congratulations. Credit where credit is due. But enough already.

Yes, id Software and John Carmack did a lot of important work in the early years of 3D shooters. Doom was a great game. But id did not invent PC gaming. There are hundreds of titles out there of equal or even greater influence - Wing Commander pioneered cinematic storytelling, Dune 2 pioneered RTS (although, as you readers are always quick to remind us, there were earlier examples), Civilization pioneered intelligent, detailed strategy, the Ultimas cemented the RPG as an important genre, LucasArts released a proud series of awesome adventures and everyone from Microsoft to Ubi Soft released groundbreaking flight simulators on a regular basis. And let's not forget Falcon 3.0.

So why does id get so much press? Why is there such glamour surrounding an ancient pseudo 3D game filled with bursting with poorly balanced weapons, hackneyed demons and a depiction of hell that can't decide whether it wants to be Dante, Bosch, Goya, Geiger or Stephen King?

Glamour is the key word here. It's

all very well to have developed the best game in the universe, but if you don't know how to pander to the basest desires of lonely geeks who get picked on at school, it's no Doom.

id is very, very good at combining good technology with simple fantasy - usually one lone marine against the demon hordes. Carmack's marketing bunnies can show heaps of blood, and not worry too much about getting banned. They can release screenshots of horrific monsters at ever-higher levels of detail. They can combine horrific gunshot wounds, zombies, cyber-beasts from Dimension X and the common office toilet to excellent effect.

It's probably appropriate to mention here then that Tom Hollenshead, id CEO, while promoting Return to Castle Wolfenstein (an id game that it had almost nothing to do with) once breathlessly said to a PCPP writer, "You know, John Carmack didn't just design the engine for Doom. All that stuff about demons coming out of the space portals on Mars? That was his idea. See, he's a really great writer, as well as a coder. He's amazing."

But the Wizards of id should take note. They should look at the new masters of cliché cool - the Wachowski brothers. The Matrix is the new nerd chic. Kids today fantasise about having Neo's 133+ skills to whale on the bullies in Year 9, not about being a Cyberdemon. Doom 3, like Doom, is stuck in the 80s. Its imagery would not look out of place on a Pantera T-shirt. id clearly still thinks Metal is still cool.

A game nobody has a machine powerful enough to play, running content that no one would be caught dead thinking is cool? Bah, you'll probably all still buy it. But don't be surprised if you're not totally blown away. Remember Quake's mixed reception - and it was the one id game that WAS impressive, from a technical standpoint if nothing else.

*The Guerrilla Gamer is a veteran PC game journalist who clearly wants to buck the popular trend just for the sake of it. You might be interested to know that he hated Duke Nukem 3D too, because the porn in the cinema on the first level was "too blurry."*





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**ISSUE #86:** The stupendously fortunate winner of the awesome 17" LCD monitor from BenQ is Gary from Elizabeth, SA! Who's got loads of friends now, eh? Gary does, and he has us to thank for it! Not that any of us will get an invite to the next LAN party though... sigh.



# THE NEXT QUEST:





# EVERQUEST EVOLUTION

## LORDS OF EVERQUEST & EVERQUEST 2

FOLLOW TIMOTHY C. BEST BACK INTO NORRATH



It's a place where an ordinary Joe can pick up an enchanted broadsword and charge into combat, drawing a mob of twisted creatures into the spells and steel of an adventuring group assembled from around the globe. This is world that 430,000 people pay to visit each and every month.

It hummed to life in 1999 and since then it has become a phenomenon with such a remarkable hook that it is affectionately referred to as EverCrack.

Even with such draw, it doesn't take a great sage to realise that EverQuest (or EverQuest Live, as it is now known) would slowly age and find it hard to compete with the grandeur of freshly minted worlds like Star Wars Galaxies or World of Warcraft.

New expansions and what magic that can be crammed down a 56K connection have injected EQ Live with new blood time and time again but the Worldmakers of the

Sony Online pantheon knew that they would have to do more to ensure the future of their creation.

The first hints of their toil came in the form Norrath opening a gateway to the PlayStation2, becoming the first persistent online world for the console. Since, we have seen plans to extend EQ into standalone adventures for mobile phones and Pocket PCs... but these were just the signs.

Two mighty portals to Norrath are being created and they shall be unlike any we've seen. One rewrites the rules and drenches the world in stunning new detail and beauty. The other, gouges back into history and floods it in the Age of Blood; a time of Lords, a time of armies and a time of war. EverQuest 2 and Lords of EverQuest are coming into being.

The untold past and unwritten future of Norrath awaits. Let's see where the Quest will take us next.





## New Beginnings

I walked the paths of power with scrolls of questions in my hands and clothed in the robes of the neophyte to the great citadel of SOE. From there I was ushered into the presence of two of the men who hold the future of EverQuest in their hands.

They gave answers plain and cryptic, and with the aid of our PowerPlay oracles I had a glimpse into the future of Norrath.

While each of these world shapers claims their only goal is to make their slice of Norrath the best it can be, a great

strategy is emerging, one with its likely origins at the heart of the Sony Online Entertainment.

The great SOE Council know that there are only so many people actively searching the land for a massively multiplayer online game. It, therefore, stands to reason that after pouring an estimated \$US20 million, and millions of mana points, into the new EverQuest epic a mere shuffling of players from EverQuest Live to EQ2 just won't cut it.

The Star Wars phenomena could be counted on to provide new blood for that Jedi toting MMORPG, but how do you draw new souls for Norrath? The answer is to blaze into new frontiers and open trading posts

Early this year, EverQuest Online Adventures allowed the most popular console on earth to become a portal to Norrath and EQ became the first massively multiplayer persistent world to grace the PlayStation2.

The streamlined nature of Adventures allows players to simply log on, whip up a character and play with the convenience of a console plugging into a phone jack.

Not only does Adventures open a whole new market but it also gets EverQuest seen in living rooms around the world. Players looking for more might

very well find themselves drawn to something a little more lavish and complex, something a little more like EQ2.

Even with the broadband enabled console users covered, that still leaves an awful lot of gamers yet to venture online untapped, that is, until now...

## Lordly Might

And Lords of EverQuest shall sound like a thirteen metre Scandinavian horn and carry the word of Norrath to the masses...

"The RTS genre is the largest within the PC gaming community and we felt that this would be a great opportunity to step in to it," says Lords of EverQuest Producer James Park.

We found Park deep in the heart of the Rapid Eye's magic labs. He wasn't the imposing figure in blue robes and pointy hat we had expected, but he did keep making references to being watched by ninjas so we figured he was the right guy.

"Just so that we are all on the same page to begin with, Lords of EverQuest is a realtime strategy game, but we have added a ton of RPG type features, as well," he says.

Most spin-offs offer players a round peg hammered into a dollar-sign-shaped hole.

This seems to be anything but the case here, and it's the way that Rapid Eye Entertainment is planning to blur the





lines between strategy and roleplaying that will make Lords of EverQuest something special in its own right.

For starters, every unit you train and control has a class, gains experience, and can be knighted by your Lord upon sixth level to gain more new powers. As troops advance through levels they are equipped with better weaponry, as well as progressing along class skill and spell trees. You can even equip these little characters with loot that you unearth on your adventures, and players should expect to uncover hundreds of items, including fan favourites like the Flowing Black Silk Sash and the epic Ragebringer sword.

If you get really attached to your rank and file you can even name them. Although the battles are brutal, Rapid Eye wants to encourage strategy and good leadership by making you give a damn about your charges.

"Increasing the level of your units is vital," says Park. "Building up an elite troupe, with a couple of 'knighted' units can really sway a battle one direction or another. Also, the higher the units level, the better and more powerful their

abilities and spells become.

"The first time I told someone we had Ice Comet in the game and working, they were like WOAH! What does it look like, can I see? Many of the high-end old school abilities have really caused players to get extremely excited."

## Taking Command

In a game where ordinary grunts grow in level and power, the titular Lords stand tall and are even more like an RPG character.

"EverQuest is based upon characters so it only seemed natural to have a main character lead these great armies," says Park. This Lord is much more than just a leader, and he says it often comes to represent the player's character. "They are also the central and most powerful units in the game as they level up. Lords

provide the player with war auras that are spheres of influence that greatly enhance the surrounding troops, as well as hurt the nearby enemy."

These Lords can rise through 30 levels (although that number is hardly set in stone) and they can be outfitted with the artefacts that are scattered across the land. Some of these artefacts (like the Ragebringer) are class and hence Lord specific, which adds an extra level to the strategy.





## CONSOLIDATE AND CONTROL

EverQuest Live is a huge and powerful beast, with a hungry fan base that needs to be fed. Even with the new titles on the horizon, Sony Online knows better than to anger their supporters by leaving them up in the air in regards to the fate of their current addiction. Lost Dungeons of Norrath expansion announces loud and proud that EQLive hasn't been forgotten. Kill stealing and having to line up for the best 'camp' sites are two things that annoy current players and two things that this expansion helps address. The Lost Dungeons generate a more tailored experience, creating specialised subterranean adventures based on your party and their experience level, as well as adding new interface options, items, weapons, spells and creatures.

There are three separate factions in Lord of EverQuest and each offers the choice of one of five archetypal Lords. For the Shadow Realm that includes: Lady Kreyia, a Gnome Wizard; Lady T'lak, a Dark Elf Rogue; Lord Skass, a Iskar Necromancer; Lord Urtt, an Ogre Warrior and Lord Veck, a Troll Shadow Knight.

Each of the 15 singleplayer Lords can trace a slightly different path through the campaign as new quests unfold for particular individuals. All up, Rapid Eye is predicting around 75 hours of campaign gameplay for the adventurous and inquisitive soul, which is nothing to be sneezed at. Then there's the multiplayer part of the game that opens up NPC Lords for play and allows players to go head-to-head online to test their strategy and creative Lording.

## Norrath at War

"Every side has their own unique strategies for players to uncover," explains Park. "For some, range may be their greatest ally, but late in the game they should go to the air. Others will find that they are very high on the micro management scale, but wield a lot of potential power. Some people prefer to be very stealthy and will therefore have some stealth units to play with. We have tried to develop as many play styles as possible."

If you were to also add all troops gaining class levels, new skills and spells, this can potentially make Lords of EverQuest one hell of a late game. These end-game conflicts can get quite huge, with battles of more than 100 units a side coming out for multiplayer clashes and a not uncommon 30 to 40 units aside in the campaign. As you could imagine, these writhing melees are likely to get very messy, very quickly, with veteran units, high end spells and Lords all thrown into the mix.

Luckily, LOEQ will feature many advanced controls to help you manage your forces including AI unit stances, automatic formations that put heavily armed fighter units in front of archers and mages, way points, queues, and a standing order to keep your Lord out of





hand-to-hand without a direct order.

While the mission structure is fairly linear - because it is packed with dialogue and story-driven events - various optional quests will allow players to delve into the history of Norrath, as well as offering up special loot and the possibility to transfer more units between singleplayer missions.

These campaign missions, with their sub-quests, take on RPG proportions with maps being up to three times larger than those we've come to know in games like Age of Mythology and WarCraft 3.

## Old and New

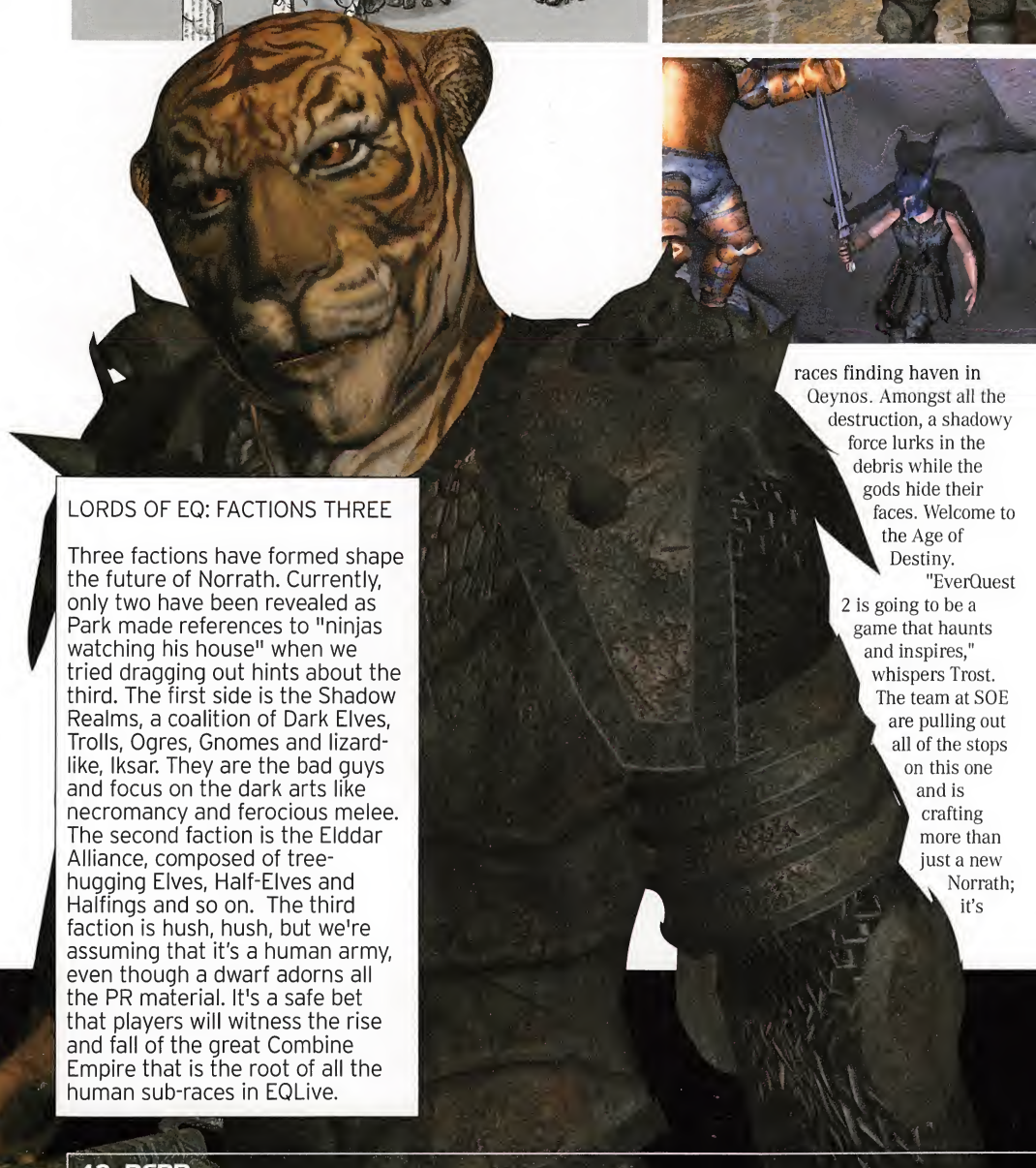
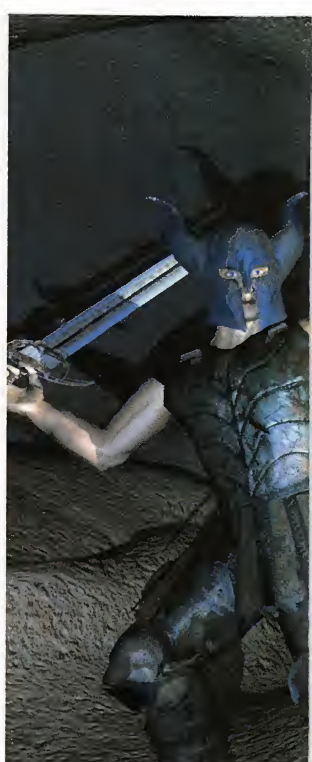
Lords of EverQuest takes place in a rough and bloody Norrath where empires rise and crumble in titanic clashes. With EverQuest 2, Sony Online seems intent of

plunging Norrath back into the darkness.

"I think players will be shocked to see the state that Norrath is in. A lot can happen in 500 years," says Bill Trost, with what looks decidedly like an evil grin. Trost was one of the founding members of the original EverQuest team, and is now the Senior Game Designer for the sequel, so you know his evil grin is well qualified.

Norrath has been devastated by wave after wave of cataclysms and only the human cities of Freeport and Qeynos still stand, with refugees from the dark realms flocking to Freeport and the survivors of the good-aligned





## LORDS OF EQ: FACTIONS THREE

Three factions have formed shape the future of Norrath. Currently, only two have been revealed as Park made references to "ninjas watching his house" when we tried dragging out hints about the third. The first side is the Shadow Realms, a coalition of Dark Elves, Trolls, Ogres, Gnomes and lizard-like, Iksar. They are the bad guys and focus on the dark arts like necromancy and ferocious melee. The second faction is the Elddar Alliance, composed of tree-hugging Elves, Half-Elves and Halfings and so on. The third faction is hush, hush, but we're assuming that it's a human army, even though a dwarf adorns all the PR material. It's a safe bet that players will witness the rise and fall of the great Combine Empire that is the root of all the human sub-races in EQLive.

racers finding haven in Qeynos. Amongst all the destruction, a shadowy force lurks in the debris while the gods hide their faces. Welcome to the Age of Destiny.

"EverQuest 2 is going to be a game that haunts and inspires," whispers Trost. The team at SOE are pulling out all of the stops on this one and is crafting more than just a new Norrath; it's

aiming for a new experience.

"It will be about having a meaningful relationship with an awe-inspiring world and the thousands of others who live there. I tend to notice the little things," Trost explains.

"I can just wander through Freeport looking up at the clouds and it still amazes me. Our clouds are procedural so they flow and form shapes and dissipate just like real clouds. It is touches like that that make Norrath feel like a real place."

## A New Place

While EQ2 is gearing up to be Norrath's flagship title, Trost is quick to point out that EverQuest Live isn't going anywhere. As the Lost Dungeons expansion shows, Sony is keen to have both games work side by side.

There will be crossover adventure zones, which are only available to subscribers of both games as well as other, yet to be announced, rewards on offer. Beyond that, Trost says that these are just going to be different games: "We strongly believe there is enough room for a variety of rule sets within the fantasy MMORPG market. EverQuest 2 is a different experience."

"We are focusing on making EverQuest 2 a deep game where a small group of friends can get together for an evening's worth of entertainment and make meaningful progress while feeling like they are part of Norrath. Exploration and discovery are a large part of our game."





## New Character

One of the first things that EverQuest Live players will notice about EQ2 is that character creation has completely changed.

Say good bye to choosing stats and a class during character creation; the only game mechanic pick you make is your race. After that, characters grow into their class as they grow in levels.

The thought behind this is that players should have some time to experience the game before choosing a life path. Maybe a turn of events will help push a character one way or another. In EQ2, sometimes heroes are not born, they are made.

That's not to say that all starting characters will be blank-faced mannequins - each will have their own unique look. In fact, Trost explains, "You can change nearly every aspect of your character and create totally unique appearances. We are hoping that you will be able to recognise your friends by their face alone."

Characters will now pack three skill types, which are Arts, Technique and

Knowledge. Arts are your special skills and abilities, your Technique determines your chances of success and Knowledge determines if, and how well, your character can use a particular item, spell or ability.

Shrewd readers will notice this combination of skills should make twinkling (the practice of handy new characters powerful items to quickly boost their power) much trickier as an item's power scales down (while its risk of breaking the scales) to match a character's limited Knowledge.

Newly created characters will find that their missions give them a taste of various paths until they grow into their class and discover their specialisation. This happens at level six, where you choose your base class, at level 15 you add a specialisation and further refine your path at level 30.

One of the big additions to the game is the non-combat Trade class. "I can't get into the specifics of the system, but our goal is for the trades is to be unique, engaging, and fun and for a tradesperson to be able to advance through the highest level of play just by plying their trade," says the senior designer.

With the four other class archetypes grounded firmly in adventurous action, the traders should be in the minority but while playing a vital role.

Not only do these crafters







progress by making things (probably gaining experience for every person using their item, as in SOE's *Star Wars Galaxies*) but these are the guys who get to make magic items.

Trost also alluded to the player-owned housing saying that it'll be the tradespeople who give each home their individual feel, giving world-weary adventures a unique place to recover from their journeys.

## Level of Adventure

One of the elements of EQLive that often put a damper on journeying through the higher levels was the punishing level grind.

With character levels soaring up to 100 at the moment, we should see less of that in EQ2, and the team promise that not only new missions will pop up but new types of missions will appear as players climb the ranks.

"We have a ton of new quest features; scripts, dialog trees, a quest journal. Some quests don't even feel like traditional quests at all, but feel more like mini-games," explains Trost, eyes a-twinkle. "It is very exciting and we can do some really cool things that add a ton of depth and meaning to the world."

Part of this is the dynamic world packed with event triggers. Now walls will shake as you approach the house-sized dragon

stomping around outside and NPCs will approach players on the street, and although impressive it's just one part of the whole.

What is most promising is the integrated approach the team is taking to create an experience. When you talk to Trost you don't get a shopping list of spells, items, skills, classes and monsters you get a feeling for a world that he is trying to create. With *EverQuest Live* under the team's belt, you know they will deliver all of those component elements in spades (48 classes, 16 races, 160 unique monsters, thousands of items), so it's hardly worth mentioning.

Tying the whole thing together is the stunning graphics. Forests stand and sway majestically, dragons hold court in ruined keeps and if you get close enough you can see the gleam of a wet tongue behind the teeth, water ripples, and armour seems to move against the body.

All of this will come at the price of some impressive system specs. *Star Wars Galaxies* requires a 1GHz processor and EQ2 isn't likely to be any more friendly. On the other hand, if Trost is able to bring his vision to life, I'm sure every cycle and MB of RAM will be put to good use.

## Keep the Quest Alive

After taking a trip into worlds of *EverQuest 2* and *Lords* it seems a little cold to talk







about marketing, but it's hard to ignore the masterful campaign that the Sony Elders have put into motion.

A triple A title flanking the RTS market, as well as the move onto PS2 and Macs, gives Sony an edge over almost every other massively multiplayer studio in existence; and the quality of their upcoming roster seems to show a magic all of their own.

With EQ2 and Lords on target for their late 2003 release dates, it would seem that the SOE High Council has read the right signs and cast the right bones ensuring the siren song of EverQuest shall echo through the wire for many years to come.



#### THE AGES

One of the most beautiful things about the EQ franchise is the way it all fits together. All of the parallel games share the same world and timeline.

The games are separate but linked, giving keen players an incentive to see where they touch and meet. To really know Norrath, you're in for a whole lot of gameplay. Here's how the games fit together:

10,000 years ago: Lords of EverQuest, a time of war, the Age of Blood  
 500 years ago: EverQuest Online Adventures  
 EQ Baseline: EverQuest Live, the Norrath we know, the Age of Turmoil  
 500 years ahead: EverQuest 2, a new dark age, the Age of Destiny









# STALKER

## Oblivion Lost

What would happen if there was another accident at the Chernobyl nuclear reactor? **David Wildgoose** scavenges amongst the ruins to find out...

When a developer name-checks the likes of Half-Life, Elite and Deus Ex as the key sources of inspiration for his latest project, it's sensible to sit up and pay attention. After all, he's citing a triumvirate of exemplary game design; the first a lesson in player immersion, the second a template for non-linearity, while the third merged the two models into one seamless, compelling experience. Ukrainian outfit, GSC Game World, is confident its game will be able to meet any expectations heightened by comparison to such titles. And crucially, the team understands the reasons why those three games are so revered.

"The premise behind STALKER is to give the player total freedom of action and movement, coupled with survival in a dangerous, unpredictable world," says Oleg Yavorsky, PR manager at GSC Game World, immediately dispelling any notion that this is yet another firstperson shooter. This freedom comes courtesy of a proprietary Life Simulation system; the dangerous world is thanks to the post-fallout Chernobyl setting. These two factors combine to create a shooter quite unlike any other – a game played out across vast expanses of uninhabitable terrain where each player survives through a potentially unique experience.

If GSC succeeds with such an ambitious project, we may well see STALKER joining the prestigious ranks of Half-Life, Elite and Deus Ex. However, things could have turned out very differently.

When development began nearly three years ago, the initial concept was of a team-based tactical shooter where the player(s)



explored distant planets. You may even have seen an early rolling demo of the game, back when it was known simply as Oblivion Lost. But as the team grew, due in part to the European success of previous titles such as Cossacks and Codename: Outbreak, the early concept mutated, so to speak, to incorporate what Yavorsky believes to be more a far more appropriate setting – the region surrounding infamous Chernobyl nuclear plant in the Ukraine.

"After all, it would be a shame not to come up with a Chernobyl based game if you are no more than 70 miles away from it," Yavorsky admits.

"Quite a lot has changed since then. We had to get rid of the robo-chickens accompanying the player and focus on the sheer realism of the game world. Instead of team-based action – at least, this is no longer the key feature – we pit the player against a hostile world full of inexplicable and horrifyingly bizarre monsters."

### Where it's at

STALKER is set in the near future, just after a second explosion at Chernobyl, though it's intriguing to note the actual epicentre was a kilometer away from the facility. The government moved swiftly to secure the area after reports of anomalous activity, including strange spatial distortions and the obligatory mutant creatures. Curiosity gets the



Developer: **GSC Game World** Publisher: **THQ** Distributor: **THQ** Due: **Q1 2004**



better of some, however, and soon the place is a hive of foolhardy scavengers, bravely foraging the afflicted region in search of potential valuables. Known as "stalkers", these mercenaries are hired by renegade scientists and black market dealers to recover whatever artifacts they can find.

The player enters this world as a first-time stalker, equipped with little other than a curious nature and, in all likelihood, a death wish. You'll traverse the Zone, freely exploring the twenty square kilometre region however you wish, and completing essential narrative tasks as well as many minor, randomly generated sub-quests. Selling and trading artifacts will allow you to purchase the new equipment needed to tackle the more treacherous locations, including the incredibly dangerous anomalous regions.

"We've planned various visual and gameplay effects for anomalies," says Yavorsky. "One of the vivid examples is when the picture starts losing colours and the screen goes black and white. Leaving that anomalous area, you will see the colours slowly getting back to your vision. Anomalies, such as gravity concentrates, for instance, are spots of great danger, and unless you've got adequate resistance equipment, result in death."

Not only will you need protective suits and the like to withstand such effects, but you'll have to be able to locate these areas first. To illustrate how this might work, Andriy Prokhorov, the game's Project Leader, demonstrated for us an anomaly which – shall we say – doesn't quite obey the laws of physics. He threw a rock into an area, only for it to be hurled out again. He then lobbed a dead body into the same place, where it twisted and contorted in mid-air, providing a persuasive example of STALKER's ragdolling. The keen-eyed player will notice oddities in the environment – metal that's been fashioned into improbable shapes, for instance –

thus alerting you to the likelihood of an anomalous region.

But the by-products of nuclear radiation aren't the only things with which to be concerned. You're not alone as Yavorsky reveals: "About 100 stalker NPCs in the Zone will carry out similar objectives as the player – fighting against monsters, looking for artifacts, accomplishing quests, and collecting information. This is what we think is truly revolutionary, as it gives us a massive multiplayer online game in singleplayer."

GSC has dubbed its artificial intelligence routines, Life Simulation. This system means all the monsters and non-player stalkers don't stand around waiting for you, but roam around the Zone pursuing personal goals. In fact, it's possible that an AI stalker may accomplish some of the major mission objectives, thus conceivably finishing the game before you get the chance. There's no cheating either; Yavorsky assures us this is all "honestly processed", to borrow his quaint expression. The end result is hopefully a unique experience for each player.

The team-based concept inherent in the original design remains

intact, at least to a certain extent. Other stalkers won't necessarily attack you on sight – though they may well do so once you've established a reputation for yourself. You can talk to and encourage them to team up with you, while in a firefight you can radio instructions to your allies.

## Bring your friends

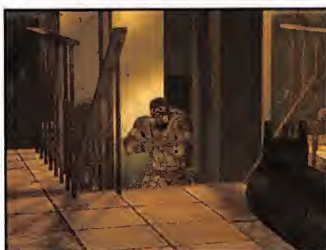
Although primarily a solo adventure, STALKER also boasts a robust array of multiplayer games. Aside from the planned team-based competitive modes, the most interesting option is undoubtedly cooperative play. Yavorsky admits he's not completely sure it will feature in the final release, but nonetheless he's extremely excited about the possibility of playing through the

story with other players.

To be honest, there are still plenty of other question marks hanging over STALKER. While we've seen a brief demonstration of team deathmatch – albeit only a three-on-three battle on a fairly small map – we haven't seen any evidence of the Life Simulation system in practice. For what is purported to be the game's chief selling point, the fact it's apparently not yet ready to be shown is a matter of some concern.

What isn't at all worrying is the impressive rendering engine responsible for the stunning environments around Chernobyl. GSC's own X-Ray engine is capable of displaying three million polygons per frame whilst performing at a respectable framerate.

"We have been keeping a close eye







on the latest technologies available in the market to ensure we have it all, says Yavorsky, brimming with confidence. "While in co-operation with video board manufacturers, such as NVIDIA, we will ensure the proper support for widest range of hardware, both DirectX 8 and 9.

"On the DirectX 9 side, STALKER will offer fully real-time dynamic lighting, soft, physically correct shadows, true per-pixel lighting, up to three million polygons per frame, physical umbra/penumbra computations, hundreds of lights per frame in real-time and much more."

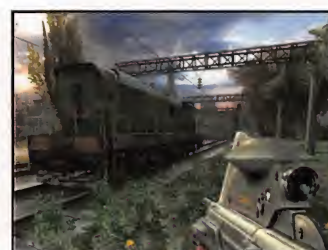
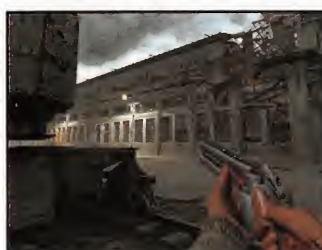
You can witness the result of these technical feats on this month's coverdisc. In particular, note the segue early on in the clip from video to in-game footage and try not to be



**"While in cooperation with video board manufacturers such as NVIDIA, we will ensure the proper support for the widest range of hardware, both DirectX 8 and 9..."**

impressed. We'll be featuring the X-Ray engine as part of our Under The Hood series in an upcoming issue.

Needless to say, we'll be covering a lot more of STALKER in general. If it's anything like as good as it sounds, we're in for a rare treat. And if GSC can crib the right parts of Half-Life, Elite and Deus Ex, we could be looking at an all-time classic.











# Empires

## Dawn of the Modern World

If you like the scale of your realtime strategy games to be epic, then Rick Goodman is on your side. **David Wildgoose** gears up for the Thousand Year War of his latest opus...



**R**ick Goodman is passionate about strategy gaming. The genre has consumed his life for over five years, ever since he led the design team on the original Age of Empires. Soon after departing Ensemble, Goodman founded Stainless Steel Studios and commenced work on his dream game, Empire Earth, which was eventually released last year to solid critical and commercial success. Now he's back once more with another squad-based tactical shooter... I mean, historical RTS, cunningly titled Empires: Dawn of the Modern World.

The briefest glimpse at Empires - even the title betrays its heritage - would suggest it's the sequel to Empire Earth. Yet Goodman is strangely reluctant to even name-check his previous game, let alone draw comparisons. Understandable, considering he's now in the business of spruiking a new title for a new publisher (Activision, instead of Sierra), but somewhat frustrating when you're endeavouring to discern the crucial USPs of two superficially similar titles. So allow me to read between the lines...

Empire Earth was a realtime strategy game of barking mad proportions; a title that attempted to depict the entire history of war, from the primitive - cavemen with sticks - to the speculative - mechs with lasers. It was a truly insane undertaking, which perhaps explains why Goodman opted for a more narrow scope for his next project.

With Empires, Stainless Steel has instead sought inspiration in the most recent millennium, the 1,000 years from World War 2 stretching back to medieval times. This should mean the developer sidesteps the major criticism of Empire Earth - that it was too much, too big, and too generic - and concentrate on delivering a more focused experience.

Developer: **Stainless Steel Studios** Publisher: **Activision** Distributor: **Activision** Due: **Q4 2003**





weaponry and traits of each of the three empires, as well as their respective opponents.

## Keeping it real

Goodman acknowledges his team has tried to faithfully recreate the rise and fall of the seven empires included in the game. As such, you won't see the USA fighting in the Middle Ages, nor Korea battling it out in WW2. For example, players who start the game as England in the Medieval Age have the option of remaining in command of the Poms as time progresses or they could choose to assume control of the US in the appropriate era.

"We've learned that historical accuracy and realism is very important to gamers," says Goodman. "We know this because we asked our players. They told us they didn't want fantasy or mythological elements in

## Goodman's adamant that realism is a prime incentive to hook the contemporary armchair general, and the research he alludes to seems to back up his argument



But still, 1,000 years is a whole lot of time for players to get their head round, especially so for an RTS where we demand a singleplayer campaign supported by a strong narrative thread. I ask Goodman just how the hell you tell a good, compelling story over 1,000 years of human history.

"Frankly, I don't know if you can," he replies. "In this context, one of the first decisions we made was not to replicate the random map or skirmish experience in the singleplayer campaigns. We have a challenging singleplayer strategy game, and we wanted campaign play to be completely different. The campaigns share more in common with adventure style games in which you follow the heroic exploits of famous leaders through perilous intrigue, conspiracies and battle."

Each of the campaigns is thus set in a different time period, and places the player in command of a new empire. There are three in all: you command Richard the Lionheart in Medieval England, Korea's Admiral Yi in the Gun Powder Age, and US General Patton during World War 2. The different eras lend inherent variety in strategy and tactics when taking into account of the unique

their historical games. They don't like alternative history - they want real history."

While both Ensemble and Blizzard may opt to disagree on this matter by pointing towards the tear-away success of Age of Mythology and Warcraft 3 to ably demonstrate their case, Goodman's equally adamant that realism is a prime incentive to hook the contemporary armchair general. The pre-production research he alludes to above certainly seems to back up his argument.

"In game design, realism and fun often collide," Goodman begins when confronted with the notion that painstaking realism doesn't necessarily make for an entertaining game. "They are two completely different beasts. It's easy to get one or the other, but achieving both is a challenge."

"When we initially embarked on the project we drew up a list of 100 historical features and battle tactics that gamers found exciting, but which no historical game had implemented. I'm pleased to say we have been able to accomplish nearly all of our ideas."

Some of the cool tactics you'll be able to execute in Empires include: hurling plague infested livestock into your enemy's town; firing a volley of chain shot into your enemy's sails to disable his fleet; reforest trees in barren land; secretly prepare the battlefield with hidden and deadly impaling spikes; direct elite commandos to swim ashore and detonate explosives in your enemy's factories; and drop up to five squadrons of paratroopers behind enemy lines. And that's just when you're controlling the English; there are even more special abilities unique to each of the seven empires.



Stainless Steel has devised 250 individual units to accurately represent those seven empires, each with their own particular abilities.

This means there are no shared units - that is, no units that look different but share the same attributes. Achieving the required balance between





opposing sides can be a chore for the developer of any realtime strategy game. But when you've got seven, hopefully unique, civilisations drawn from across one millennium then that chore becomes more of a nightmare.

"We've had to discard everything we'd learned about play balance over the last five years and start again from scratch," claims Goodman, explaining his approach to the task of balancing. "That's because our goal is to create imbalances in every civilisation, to give each civ its own well-defined strengths and weaknesses."

If that sounds counter-intuitive, then think of it this way: in most RTS titles, balance is solely arrived at via a cheap rock/paper/scissors method where competing forces are fundamentally the same; in Empires, play balance is going to be achieved by allowing the player to employ completely different strategies and tactics. You've no doubt heard this kind of lofty claim many times before,

but Goodman is firm in his belief that Empires is the first RTS to successfully design and balance seven distinct civilisations.

"One of the most exciting things about the game is the fact that every unit is genuinely unique with its own civ-specific art and attributes," he continues. "Moreover, many units have secondary attacks and special abilities which are controlled by the player. The result makes for much more exciting and unpredictable battles, as player involvement is crucial. You are in control of the outcome of each and every battle because player skill determines victory, not rock/paper/scissors."

US Rangers can call in long-range artillery strikes, while Engineers can place mines and repair tanks. Russian Commissars can toss Molotov cocktails and even encourage their troops to fight harder by shooting them in the back. These kinds of civ-specific options are furthered by the



game's approach to the ubiquitous technology tree.

Once research has been completed, a new special ability is acquired (represented by an icon at the top of the screen, in a manner similar to Age of Mythology). These can be used to attack an opposing player's economy (French Embargo), to refit and equip a massive army instantly (Russian Communist Propaganda) or to smash through enemy lines (German Blitzkrieg), to again name but a few.

## You're not alone

Elsewhere, multiplayer fans appear to be well-catered for, thanks to three distinct play modes. Empire Builder, with its huge maps and unlimited population cap, allows for a game where expansion and territorial control are keys to victory. The Action mode is for offensive-minded players who want to rack up dozens of games in a day to climb the ladder rankings as quickly as possible. Finally, the Deathmatch scenario presents almost unlimited resources for a fast-paced game.

But what style of play does Goodman himself prefer? I ask him if he's a strategic player who focuses on streamlining his economy or a tactical player who likes to micromanage units in the heat of battle.

"I wouldn't place myself in either category," he counters, ever remaining the consummate salesman. "Personally, I like a deep game which provides the player with a superb balance between empire building and conquest. A good player should be able to win on either front by out-producing his opponents or by

superior generalship.

"I like epic, historical games that encompass large expanses of time, huge technology trees, thrilling multiplayer and outstanding singleplayer experiences. Like most gamers, I want it all!"

Will Empires: Dawn of the Modern World be able to deliver it all? We'll find out soon enough...









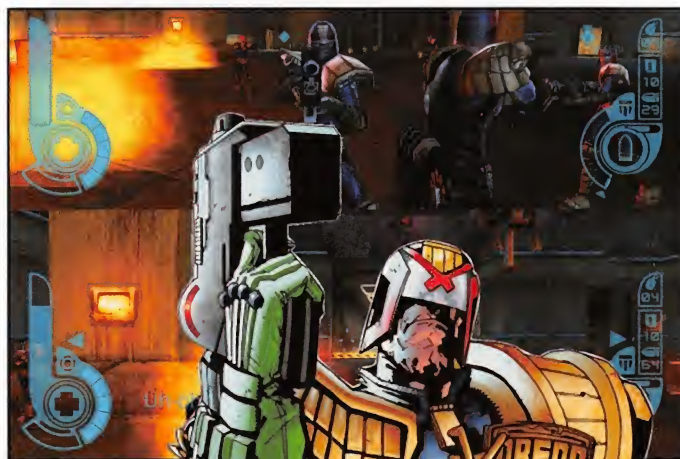
# Judge Dredd

## Dredd vs Death

26 years after first uttering his now immortal line, "I am the Law!", Judge Dredd, the Lantern jawed, five o'clock shadowed, no nonsense long arm of Mega City One's law is finally making his way onto our PC screens courtesy of British development studio, Rebellion. **Daniel Wilks** thinks it's about time...

**F**or over a quarter of a century the titular judge, jury and oft times executioner has been meting out his own brand of caustically funny rough justice on all manner of evil doers ranging from zombies to political dissidents, fast food monopolies, aliens, Predators and once even Batman. Combining some insightful political satire, great art and hilariously dry dialogue, Judge Dredd launched 2000AD magazine from being a well written but less well-received anthology comic to one of the heavy hitters in the industry.

Unfortunately, the last piece of public exposure the Judge Dredd franchise had was the great looking, but poorly performing, 1995 movie starring a terrifyingly mush-mouthed Sylvester Stallone. The problem with the movie, apart from it being badly scripted, ultimately came down to (from a Judge Dredd fan point of view) Dredd being portrayed as a fallible, all too human character. Whilst his place in the homo-sapiens genus is undoubtable, his fallibility is not a question - Judge Dredd is not a normal man looking for solutions to life's problems and minutia of everyday living - he is The Law. His word is



unquestionable and his resolve is unwavering. And his helmet never, ever comes off. With these thoughts in mind, the PCPP Judges recently had the chance to speak to Ed Woolf, the producer of Dredd vs Death, asking him the hard questions under threat of summary judgement.



Developer: **Rebellion** Publisher: **Vivendi** Distributor: **Vivendi** Due: **Late September**



## JUDGE ANDERSON

Although not playable in the singleplayer game, fanboys of the Judge Dredd comic will be happy to know that the sexy Psi-Judge Anderson will be an important NPC character and one of the skins available for multiplayer. Judge Anderson is a vital character in both the comic and the game as she is the foil of the Dark Judges. Possessed of great psychic powers, Judge Anderson is probably the most noble and 'pure' character in the 2000AD universe.



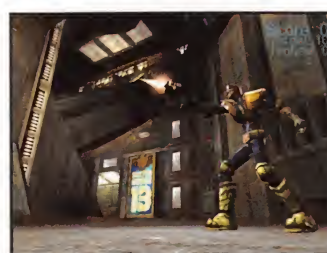
When interrogating a suspect it's customary to ease into the difficult questions with a series of seemingly innocuous verbal jabs. Damn procedure - PCPP is the law and we do things our way. Throwing caution to the wind, we opened with the most difficult question of the evening, hoping to catch Woolf unawares. You see, we understand that comic book properties are hot commodities now with Hollywood buying up anything with a full bleed, but as far as we knew, Judge Dredd is a character on the decline, his popularity peaking just before the release of the 1995 movie. The big question is why now? Aren't there hotter comic book properties begging to be made into films? We hoped to catch Woolf off-guard but he obviously woke up far

earlier that morning than we did. Although only responding by email (not the best interrogation medium), we could hear the producer laughing at us from his evil lair.

"To paraphrase Mark Twain, the reports of Dredd's demise are greatly exaggerated", Woolf says. "Although the 1995 film was a particularly high profile outlet for the character, as big budget Hollywood films tend to be, Judge Dredd is no more a dying franchise than Batman (which last saw celluloid in 1997). In fact, there's more going on with the Dredd franchise now than there has been in a good many years. Not counting Dredd vs Death, there are also two new films in the pipeline, a range of novels, graphic novels, phone games, even 'Heroclix' gaming figures, not to mention Dredd recently butted heads with those biomechanical terrors, the Aliens, in a high-profile top-selling crossover series."

It was then that we realised Ed Woolf would be a tough nut to crack, so we dropped the pretence of being tough as nails future lawmen and got stuck into the details of the much anticipated upcoming multiformat shooter. After seeing the screenshots the PR firm had given us, we were somewhat excited by the look of the game but were still in the dark as to what Dredd vs Death was actually about - we assume that somewhere in the story Judge Dredd will confront his arch-nemesis, the evil Dark Judge, Judge Death, but know little more than that. Woolf was reticent to divulge, but after some serious prompting, (read, begging) he let us in on a few key tidbits saying, "If we told you all the secrets in the game now, it wouldn't be as scary when you came to play it! But to give you a broad idea of the premise of the game, an ever-so-slightly mad scientist called Dr. Icarus has developed a serum to bring citizens' deceased pets back to life."

As Stephen King's Pet Cemetery taught us, nothing good can come from trying to bring Mr. Tiddles back to life (RIP Tiddles, we miss you, little guy). Just to add extra credence to the



## Dredd has to deal with vampires, zombies, death cultists, street gangs, missing Psi-Judges and the four Dark Judges...

horror maestro's thesis, Woolf went on to add, "This is all fine and dandy until he experiments with it on humans, creating a race of super-tough, deadly vampires whose bite turns luckless citizens into zombies. Dredd has to deal with the chaos caused by the vampire and zombie hordes, plus Death cultists, violent street gangs, missing Psi-Judges, and the four Dark Judges themselves." For those non-fans of the series, the Dark Judges are the absolute embodiment of chaos, diametrically opposed to the rigid, law-abiding Judges. The four Dark Judges, Fire, Fear, Mortis and Death hail from an alternate universe much like our own. Obsessed with wiping out all sin, Judge Death decreed that life itself was a sin (since all crimes are committed by the living) and set about righting all of the wrongs of his world. After cleansing his world of all life, Judge Death and his three compatriots set their eyes on Mega City One. After countless battles with the Law abiding Judges, the four dark Judges were captured and held in ghostly form in the Nixon Iso-Cube Penitentiary. Needless to say, the Dark Judges will find a way to escape for the game, giving the player some bosses to battle.

Although Judge Dredd is well known for letting his gun do the majority of talking for him, Woolf assures us that Dredd vs Death will not just be another run of the mill run-

and-gun style shooter. "One of the novel gameplay features is the Law Meter, which measures how well you are playing as a Judge," Woolf says. "If you arrest people, for example, it goes up, but if you kill innocent civilians it goes down, so you generally have to challenge people and get them to surrender. However, if they have friends around, you may suddenly find yourself in the midst of a huge gun battle, at which point you can return fire legally without worrying about a drop in your Law Meter." Apparently, if your Law Meter drops too low then Dredd himself may be hunted down as a rogue judge. It is also possible to make perps surrender by threatening them, sneaking up behind them or affecting their morale. Exactly how this will work was not made clear at the time of writing, but being able to avert a firefight by intimidating the crap out of an opponent is definitely an idea with potential.

## Behind the scenes

Take one look at the screenshots and it's obvious Judge Dredd has some serious polygon pushing power behind it. Using the spec-built Asura engine, Dredd vs Death will feature fully scalable graphics. Ed Woolf went on to explain, "The beauty of Asura is that it is flexible enough to allow us to work easily across all major formats - PC, PlayStation 2, Xbox and







GameCube - and scaleable enough so the games we develop using Asura will work perfectly well on a relatively humble PC, yet provide masses of bells and whistles on the most bleeding-edge monster gaming PCs. Asura permits us to have a large number of characters onscreen at any one time, and to create massive levels with a real feeling of scale, which are both pretty much a necessity when realising the vast, bustling



metropolis of Mega City One."

We've heard that promise before, but we'll reserve final judgement until we have the code in our hot little hands. The most interesting thing about Dredd vs Death's engine is the unique form of rendering that seems to place a dense black outline around people and objects giving it the inked look of comics. Woolf agreed with our observation and added, "For Dredd vs Death, we have developed our own 'graphic novel' rendering system, to reproduce the look and feel of the Judge Dredd strips in 2000 AD. This rendering system uses a number of techniques, including specular highlighting and dynamic lighting, to create distinctive environments and characters that look very different from hyper-realistic or cel-shaded rendering systems that can be found in many games these days."

As is expected with modern FPS titles, Dredd vs Death will include a robust multiplayer option featuring all of the standard game modes but in keeping with the Mega City One setting of the game will also feature a game mode called Block Wars. Although not too willing to divulge too much information, Ed was willing to give us this intriguing little teaser, "Each team controls a block (or building), and you fight with heavy weaponry such as Grenade Launchers against another team to dominate both blocks, with missiles and explosions going off everywhere - true madness."

We're not sure if this means that teams will start in their own blocks and try to kill the other team or whether each player controls an AI team and try to wipe out all others. Rest assured that as soon as we receive the review code you'll be the first to know.

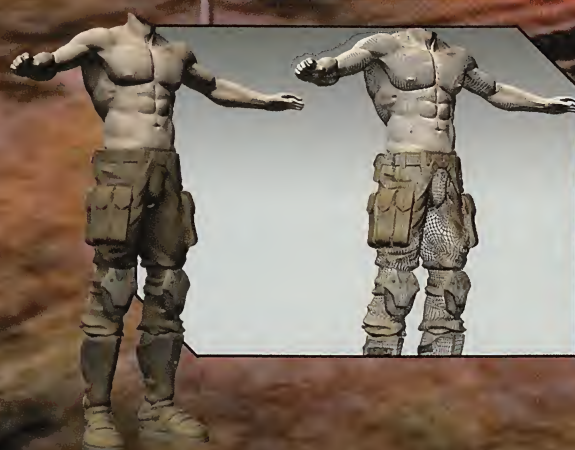
After conversing with Ed Woolf, we're really looking forward to seeing Dredd vs Death in the flesh (so to speak), but there's one more piece of information that put a big smile on our faces. Unlike the 1995 movie, Dredd vs Death's title character will never remove his helmet. Ever.

#### WORLD'S MOST EVIL CLOWN

Believe it or not, in 1977 a number of issues of 2000AD featuring the exploits of Judge Dredd were removed from sale after a certain fast food giant who's mascot is a happy clown (if somewhat creepy looking - though calling a clown creepy is tautological) threatened legal action for defamation and illegal use of its likeness. You see, whilst telling the history of the Cursed Earth, we learn of a great war fought between two burger aficionados, Donald McDonald and King Burger and their armies. Although funny as hell, the embattled 2000AD didn't want to risk any type of financial settlement (even though they probably could have had the case thrown out using the Parody laws), and so instead opted to remove the issues from sale, thus ending any proceedings. So there was no gap in the story, the Burger Wars storyline was relayed as a campfire tale told by a wanderer of the Cursed Earth.



# UNDER THE HOOD CRYENGINE



**W**elcome to Under the Hood, where we look at the technology that drives the blockbuster games we play, as well as the games we're getting excited about. In other words, we're going to be digging up the dirt on the major game engines with detailed explanations of the game engine feature sets direct from the people involved in the creation of these engines.

We'll be doing a new Under the Hood every second month, and we thought we'd get the ball rolling with the CryEngine, developed by Crytek for use in the upcoming firstperson shooter, FarCry. We're guessing Crytek uses the word cry so much because there will tears of joy when you see this engine in use in late 2003. We were certainly impressed. After getting some hands-on time with the engine at the local Ubisoft office, we have to say this is shaping up to be one of the smash hits of the year, with technology that is at least equal to both Half-Life 2 and Doom 3. Yes, it's that damn good.

A massive thank you to Cevat Yerli, the CEO and President of Crytek, and who is also the technical director of the CryEngine and FarCry, for taking the time out to answer our probing questions. Let the Q&A begin!

Without game engines, we wouldn't have games. Kind of obvious, really. **Bennett Ring** kicks off our new game engine section with an in-depth interview with **Cevat Yerli**, the technical director of the spiffy new CryEngine.





#### Can you please give us a little background on the CryEngine?

The CryEngine is the heart of Crytek - it started the day we founded the company, and from the beginning has powered all of our development as a studio. It began with the bare minimum functions we needed to create a demo and move the studio into production. Since then it has grown to fill all of the development needs of our studio.

#### The physics system within the CryEngine looks very cool. Can you describe some of its features?

It's a Physics-on-Demand system that our physics programmer likes to call a SPQR: Scaleability, Performance, Quality, Robustness. It supports all major features people expect in a cutting edge physics system, including rigid bodies, ragdolls (that can either fully simulate dead bodies, or be used as a physical layer on top of animations), real-physics vehicles, physicalised particles, ropes, cloth and water dynamics. The "Physics-on-Demand" statement refers to the way in which we make sure we are only computing those physicalised entities that are actually interacting at any one time. This means they don't affect the memory limitations of the game so much, and thus can work on moderate machines without a major negative impact on the game.

#### The CryEngine makes use of some cutting edge graphics techniques to bring stunning character detail and gorgeous environments. What are these features and how do they work?

One of the key technologies is Polybump, which defines the very detailed and rich visual look of CryEngine-created game assets. What it allows us to do is read the details of an extremely high resolution polygonal model (in the case of some of our characters, 250,000 or more polygons) and then map these details to a complex normal map. This can then be wrapped around a lower resolution model used for in-game per-pixel bump-mapping and rendering. What this results in is an extremely complex-looking model that really is not so complicated and does not slow down the game. When you are working with dynamic lights and special shaders, this is critical, as each poly is drawn multiple times to facilitate stencil shadows, lighting, reflection, etc. Another technology we use are Dot3-Lighmaps. Games are based usually on a lighting model called Lightmaps and they look great, are fast, precomputed and static. However, the disadvantage is that this model misses the 'per-pixel' bump-mapping that most new competitor-projects utilise

in a lighting model called Per-Pixel Lighting. This looks great due to the individual pixel bump-mapping, but their calculation is dynamic and per frame, which means this is slow!

Knowing this, we created a completely new lighting model, called Dot3-Lightmaps. What this allows is bump-mapping with multiple static lights on static surfaces, which pre-computes the dominant direction of lights together with colours, and stores them in a Dot3-Lightmap that works with the per-pixel lighting for faster rendering and better quality. The result? We have both advantages of both known lighting models and at a high framerate. This is a patent-pending technology.

The last technology is our Blended Animation System, which works hand in hand with our AI system to create dynamically generated blended animation system. It allows us to blend many layers of animations, as well as blending animation with physics. Together, it makes our AI controlled

characters move smoothly and naturally without having hundreds of animations for any given situation. It also means that all the animations work with real physical hit reactions and physics, including rag-doll death.

#### Sound is obviously very important when creating atmosphere and mood - can you tell us something about the CryEngine's sound support?

We have two systems in our engine. The first is the Complete EAX and Dolby Sound where you can add a wide range of predefined presets for indoor, outdoor, ambient and environmental sounds, or you can even create entirely new sets of sounds. In the editor you can then define sounds as shapes, sound spots or areas, so that you can get exactly the sound you want, exactly where you want it in space and with the appropriate mixing, falloff, etc. Most importantly, you can edit them in realtime when you are actually in the game, so you can get it just right.

The second system is the Dynamic Music Generation, which we developed to allow the composer to mix any number of music patterns (which we call moods) based on any realtime game information you would like to attach it to. In Far Cry, it is based on the AI and its perception of the player - but this is just one choice - you could attach it to anything you wanted. In some cases, we attach the cues to volumetric triggers in the level or special game events, so that when a player goes somewhere specific or does something unique, they get a particular theme that blends seamlessly into the musical mix. The final result is like having a realtime DJ that dynamically creates music to highlight the player's actions and generating an extremely immersive environment.

#### You guys have been pimping the fact that AI is one of the strengths of the CryEngine. So, what's the big deal?

Instead of using chase-path and predefined behaviour scripts for action, the CryEngine has a complete system for supporting unscripted AI. This means that by hypermarking the terrain and environment, we can set up a level that enemies can behave naturally on using only their current situational awareness to define their responses to the player. When enemies are unaware of you, they

**THE (IN GAME EDITOR) IS A POWERFUL TOOL AND ALLOWS US TO PROTOTYPE QUICKLY, BUT MORE IMPORTANTLY WE'RE ABLE TO REFINE EVERYTHING WITH CONSTANT PLAYTESTING WHILE EDITING.**



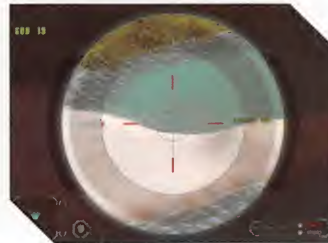




**THE ART OF TECHNICAL GAME DESIGN IS ABOUT UNDERSTANDING HOW TO MAXIMISE THE EFFECTS WITHIN CONSTRAINTS. THIS WAS TRUE 15 YEARS AGO AND REMAINS TRUE TODAY, ALTHOUGH WE GET BETTER RESULTS THESE DAYS FOR THE SAME EFFORT.**







act normally - completing whatever idle actions you might have set them up to do (walking, talking to each other, etc) based on places in the environment that are interesting to them. When they are in combat, they use their situational awareness to move, flank an enemy, use cover, move together, call reinforcements when needed, etc. Best of all, it's different each time the game's played as it's based on player action.

**The editor for this looks revolutionary, allowing realtime manipulation and creation of game levels. Tell our inquisitive minds a little more...**

From the beginning, the design of the Sandbox was to ensure that the turnaround time is shortened when a designer has an idea, implements it, tests it, and revises it. We call this, 'What you see is what you Play', which means that you can edit while you are playing. By editing we mean anything - terrain, objects, entities, FX, lighting, AI, scripts - if you want to change something in the game, you are able to and will immediately see the effects in the real game. A single button press moves the player from actively playing the game to editing it without moving the camera. This is an incredibly powerful tool, and allows us to prototype very quickly, but perhaps more importantly, we are also able to polish and refine everything through constant playtesting as we are editing.

**How will these features, as well as any others, make the CryEngine stand out from the rest of the crowd?**

There are only a few studios in the world that can offer a development package with such a wide range of features. Just as importantly, we are going out of our way to ensure that it is all available to the mod community in addition to the licenced product for the professional community.

**Will gamers need/benefit from any specific hardware when running the CryEngine? For example, a DX9 videocard or Hyper-Threaded Pentium 4?**

The CryEngine is compatible with any DX9 compatible hardware. We are working on some new technologies for CPU manufactures, so we'll let you know of more developments very soon!

**What is the baseline system necessary to run the CryEngine with most of the eye candy turned on at a resolution of 1024x768 and that will allow gamers to have smooth framerate even during the most detailed/resource intensive scenes? (We saw the engine running on a laptop and were impressed by the smooth framerates at high detail levels. So it should purr on a high end PC!)**

This is a good question, probably the fastest hardware you will be able to have at this time. No, I am kidding. On a P4-2.0GHz+ with 512MB RAM and Radeon 9700 or GeforceFX5800 Ultra, you will be the one who can have a graphical orgy.

But on our recommended system, P4-1.4GHz with 512MB and Geforce 4 Ti4600+, you will still be able to enjoy nearly all of the graphical features, albeit at medium quality.

**Explain what the CryEngine physics engine can and cannot do.**

This is definitely a 'How deep is a hole?' kind of question. The days when the polycount was the

biggest issue are long gone - most important now is how you utilise the space. Factors that affect the performance are now much harder to judge because the way you do something is more meaningful than what you do.

For instance, you might ask, "How many physicalised objects can you have in a level?", but this question is unanswerable. As long as you put physicalised objects where they don't all bump into each other at the same time, the answer is limitless because they won't all update at the same time. If they are all simple cubes, it is less complex than if they are all 2000+ poly and 60+ boned characters, like the ones we use in Far Cry.

Another example is how detailed you can make the environments considering limitations in lighting and polybump mapping. We are at the point where we are showing perceived polys per pixel - you cannot actually see any more detail than that. But if you then cover all of that in a reflective texture and then use a massive particle system fog with alpha channel on top, fill the room with real water with refractive effects and surface reflection, throw in a physicalised fan that bangs into a bunch of AI as they shoot guns at you and casts stencil shadows from 12 light sources, the system will grind to a halt. But so would any other system on earth.

There are always limitations - the art of technical game design is about understanding how to maximise the effects within constraints. This was true 15 years ago and remains true today, although we get better results these days for the same effort.

**Describe the network code of the CryEngine (dedicated server hardware requirements, maximum online players per server, bandwidth usage, client side vs. server side code, etc).**

This is all in development, but the network code is not really that much of a bottleneck for us in terms of how many players, game code that drives the players, the effects that we use in the levels, and how well they respond to a whole lot of complex players being drawn.

**Are there any other games in development using the CryEngine?**

None that can be announced at this time.

**What would you like to implement in the next version of the CryEngine?**

We have a few major ideas, but the majority of our ideas for the next revision of CryEngine involve rebuilding a few key modules for higher performance and even more systematic architecture. We also want to implement some of the few thousand small user notes we developed when creating Far Cry with the engine. We are also developing an even easier to use and cleaner scripting language (CryScript), which we will use to replace LUA. Although LUA was a great choice for our past and current requirements, we will need a different approach with our next-gen games that will unfortunately force LUA to its limits.

**Describe the modding and creation tools that the CryEngine will ship with. From what we've seen so far, these are light years ahead of any game editor ever created.**

Of course, the major tool is the CryEngine Sandbox - which is a complete game editing package, as I mentioned before. It is important to emphasise that Sandbox actually runs the CryEngine and in the case of Far Cry, its game-code within the editor, and not

some special viewing code. What you see in the editor is what you will play in the game - exactly. When you are editing a beach and birds are circling the cursor you are using to move brushes around in the sky, particles are bouncing off your terrain as you adjust it in realtime. There is very little like this in the game development world, in both hobby and professional sectors.

In addition, all the game codes the mod community would want to change (weapons, vehicles, game rules, etc) is implemented in LUA script, which means that it is relatively easy to alter and create incredibly diverse and interesting mods. With only some minor scripting, the CryEngine could support most major 3D game types, such as racing games, fighting games, platform games and action/adventure games.

**There you have it, folks. The CryEngine is shaping up to be a killer game engine, and looks like it's going to run better on the low end than some of the other big name engines without a loss in detail. Combine this gorgeous, multi-faceted engine with the brilliant Sandbox game creation/modding tool, and we're confident that this engine is going to have a long life.**







# Frequency Fallacy

This month, Asher Moses blows apart the myth that higher memory and frontside bus frequencies have a significant impact on game performance. Here's why you shouldn't believe the hype.



There are a multitude of methods a CPU manufacturer can adopt in order to increase the performance of its products.

The easiest and most common way is bumping up the processor's multiplier (see "What determines a CPU's clock speed" boxout). However, a manufacturer can also add more cache to the CPU, include specific optimisations for certain tasks (e.g. 3DNow! for AthlonXP's, SSE2 for Pentium 4's), shorten the pipeline (allowing each clock cycle to be completed at a faster rate), or increase the frontside bus speed (fsb). Once all of these steps have been tried, the next level is to create a brand new CPU architecture, but these operations are few and far between.

Lately, one of the most common performance boosters has been to increase speed in the frontside bus. This extends the amount of data that can be pushed through the bus during each clock cycle, allowing it to take advantage of higher speed memory modules, etc.

However, how much extra real world performance is actually obtained from these increases in fsb, and is the higher clocked memory really worth it? Well, if you bothered to read the introduction to this article, you'll know that's exactly what we want to find out! If the above sounds a tad confusing, fear not, as all will be explained.

## Does this bus go to Redfern?

Don't let the strange name fool you, as the role of the frontside bus really is a simple concept to grasp. Think of your PC as a city on a Monday morning, with most of the population trying to get to work in the central business district (CBD). However, to get to the CBD, cars have to travel on crowded highways, with the amount of traffic dictating the speed at which each person arrives. Now, think of the people in their cars as data, the CBD as the CPU, and the highways as individual buses, with the frontside bus as the primary highway that is the direct path to the CBD/CPU. It is also important to note that the frontside bus

connects to numerous other buses, such as the memory bus, the PCI bus, the AGP bus, etc, allowing data to be transported directly from these buses to the CPU. The more people wanting to get to the CBD, the more work needs to be undertaken.

With so much data fighting to make its way to the CPU/CBD, things tend to get pretty crowded as the CPU can only process the amount of data that fits on the bus/highway. However, what if the speed limit on the highway was increased? This would allow more cars/data to travel down the highway/bus in the same amount of time, reducing traffic jams and allowing people to get to work quicker. Essentially, increasing the fsb does this. For example, a 133MHz bus features a maximum transfer rate of 2.1Gb/sec, however, increasing the bus speed to 166MHz boosts this to 2.7Gb/sec, which, as you can see, allows more data to be pumped through the bus each second.

A problem that often arises with these interconnected buses is when both the fsb and the connected bus aren't running at







the same speed, resulting in some wasted bandwidth. For example, imagine a fsb running at 166MHz (2.7Gb/sec), while the memory bus outpaces it at 200MHz (3.2Gb/sec). Although the memory bus can send data to the fsb at 3.2Gb/sec, the fsb can only receive that data at 2.7Gb/sec, and vice versa. This presents a bottleneck, and is why, for maximum performance, your fsb and memory buses should be running synchronously. In essence, the primary role of the fsb is to connect the CPU with the PC's system memory; however, the speed at which data can be transferred over this connection often varies.

## The real world

Now that you're aware of the vital role the fsb and memory bus play in any computer system, it's time to get to the crux of this article: what do today's CPUs have to offer, and should you give a toss about it? As you're most likely already aware, the two leading CPU manufacturers in the desktop market are AMD and Intel, and we have seen

each almost routinely increase the fsb on their processors every year or so. AMD has increased the bus on its Athlon from 133MHz (double pumped to deliver an effective 266MHz), to 166MHz (double pumped to 333MHz), to 200MHz (double pumped to 400MHz). Double pumping simply refers to the bus sending two chunks of data for every clock cycle. Likewise, if the speed is quad-pumped then the bus sends four pieces of data for every clock cycle. Intel has upped the fsb on its Pentium 4 processor from 100MHz (400MHz quad-pumped), to 133MHz (533MHz quad-pumped), to a more significant 200MHz (800MHz quad-pumped), all in the time span of a few years.

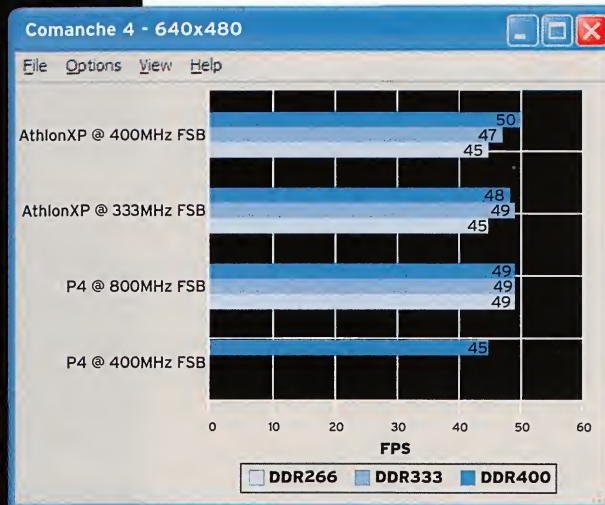
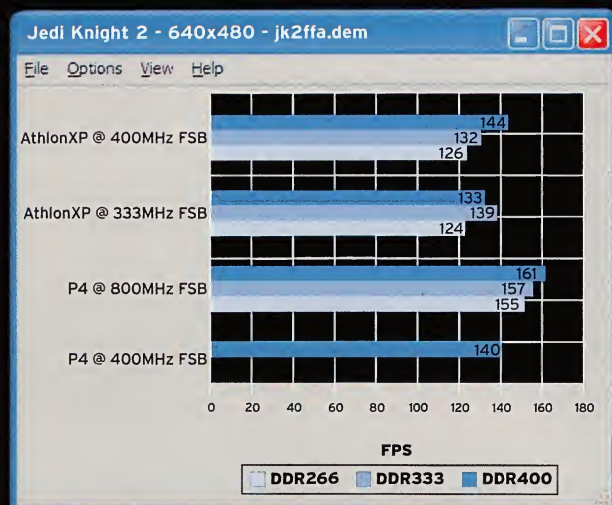
Coinciding with these fsb increases, motherboard chipset manufacturers such as VIA, Intel, SiS, NVIDIA and ALI have all updated their product ranges to not only support these new fsbs, but also support higher memory frequencies in the hope of edging out the competition. However, are you, the consumer, benefiting from such frequent product

releases? Is it worth upgrading religiously with each fsb and memory increase? To answer this, the PCPP Tech crew donned our Sherlock Holmes hats, broke out the trusty magnifying glass and took a closer look.

## Testing methodology

Both AMD and Intel were kind enough to supply processors for use in our investigation. Thanks also to Altech ([www.altech.com.au](http://www.altech.com.au)) for supplying DDR266 and DDR333 for the tests. As far as Intel is concerned, we tested two 2.4GHz chips, one at 800MHz and one at 400MHz. This is because the 2.4GHz model is the fastest P4 that comes in both bus speeds. Unfortunately, a 533MHz fsb model was unavailable at the time of writing. We initially ran into some problems when it came to sourcing our AMD processors, as there is not one AthlonXP that comes in both 333MHz and 400MHz flavours. Thus, a multiplier unlocked AthlonXP 3200+ was used, allowing the CPU's multiplier settings to be manipulated in order to keep clock speeds identical, but have the fsb running at 333MHz and 400MHz. Furthermore, to see just how much extra performance could be gained from boosting memory speed, we tested each processor/fsb combo with DDR266, DDR333, and DDR400 memory. We excluded the 400MHz fsb Pentium 4, as the ABIT IC7 does not have the necessary fsb:DRAM ratios when the fsb is running at 400MHz. Aside from the varying processors and fsb/DRAM speeds, all other variables remained constant when we used our standard test bench components.

We've finally got our CPU/memory and motherboard PowerTools developed,

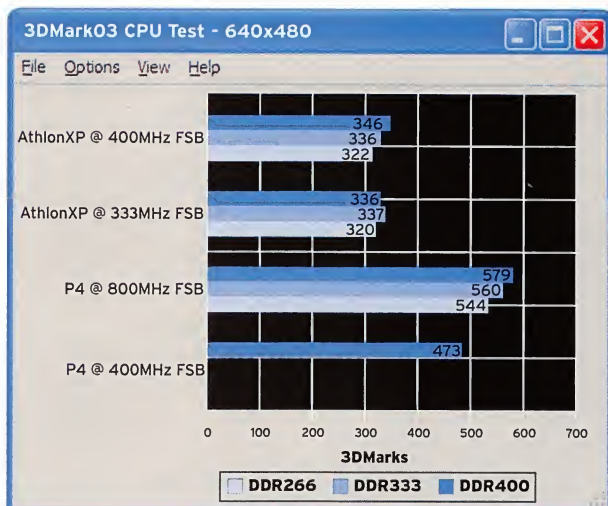
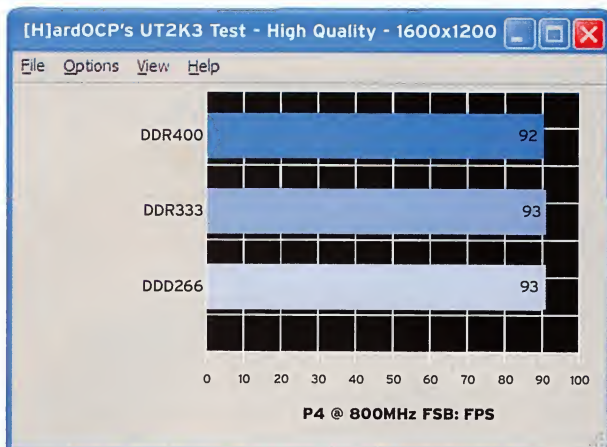




# FREQUENCY FALLACY

## WHAT DETERMINES A CPU'S CLOCK SPEED?

A CPU's clock speed is made up of the multiplier and the frontside bus (fsb) speed. Multiplying the fsb by the multiplier gives us the actual clock speed, so increasing either of the two will in turn increase the speed of your processor. For example, a Pentium 4 3.2GHz has a multiplier of 16 and an fsb of 200MHz (800MHz quad pumped).  $16 \times 200 = 3200\text{MHz}$  or 3.2GHz. Simple? Thought so.



so this article provided a great opportunity to give them a good run for their money. These include [H]ardOCP's UT2003 test, Jedi Knight 2, 3DMark03's CPU test and Comanche 4, all running at low resolution to take the load off the videocard. Check our PowerTools page for more information on these tests.

## The Results

As you can see from the graphs, the results turned out to be very interesting, indeed. Although there are a number of conclusions to be drawn, it is safe to say that, unless the fsb is significantly increased as seen in the Pentium 4 going from 400MHz to 800MHz, gaming performance is not going to increase by a noticeable level. A nice rule of thumb for performance increases is that if it's less than 10% faster, you're not going to perceive the difference. Therefore, if you own an AthlonXP 333MHz fsb processor and are contemplating an upgrade to a 400MHz fsb, this would be a foolish move because performance increase is minimal. On the other hand, if you own a now

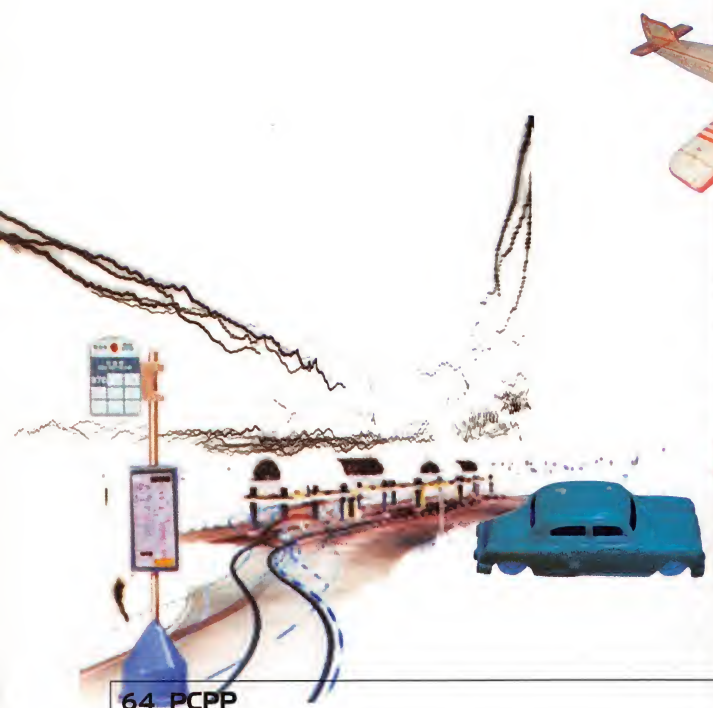
ageing 400MHz fsb P4, you may want to consider upgrading to an 800MHz fsb chip as you will, in fact, see some tangible performance increases in most games.

Our extensive memory testing also yielded some interesting results and a trend seen throughout the entire benchmarking suite. In a sentence, the tests indicate that performance will always be at its best when memory is running synchronously with the fsb. This can be seen in the case of the AthlonXP, where the 333MHz fsb paired up with DDR333 memory actually performed better overall than the 400MHz fsb running DDR333. Thus, it is safe to assume that if current memory modules were able to run at 800MHz (like the Pentium 4), performance would be at optimal levels. Which is exactly what happens with the new dual channel DDR400 motherboard chipsets, such as the 865PE and 875P (these boards deliver 800MHz worth of memory frequency as they're feeding two lots of 400MHz memory to the processor at the same time, which effectively equals 800MHz).



## ASYNCHRONOUS CAN BE FASTER - ON SLOW MOTHERBOARDS

Just as this article was about to be booted out the door to the printers, we saw some benchmark results that suggest an asynchronous memory frequency and frontside bus can be faster than synchronous. However, this was only seen on the KT600 chipset, which is slower than the nForce 2, so you probably won't want to run this chipset anyway.





Furthermore, most benchmarks saw a healthy performance gain when upgrading from DDR266 memory to DDR333/400, however, upgrading from DDR333 to DDR400 proved to be of little benefit, except in the case of the AthlonXP with a 400MHz fsb where the memory was running synchronously with the fsb.

We decided to perform further tests in a more intense environment in order to increase texture sizes and hopefully force the graphics chipset to make use of system memory for storage. We decided to use [H]ardOCP's UT2003 test in High Quality mode at the maximum possible resolution (1600x1200). For these tests, the Pentium 4 800MHz fsb processor was used, and the results for each flyby demo (there are about 10 of them) were averaged to give a final FPS score. Much to our surprise, the results were virtually identical, with the FPS difference between DDR266/333 and DDR400 being well within the margin of error of the application. While running your memory synchronously with the fsb, it is always going to result in maximum performance

(as is the case with AMD CPUs), if you're running a Pentium 4 processor, memory is clearly not a factor as far as 3D performance is concerned. This is because modern graphics cards feature copious amounts of memory (our card came with 128MB), which means the system memory is only ever accessed after the card's onboard memory has been consumed, which rarely, if ever, happens in current games. That said, owners of older cards with 32-64MB of memory should at least be running DDR333/400, as system memory will most likely be required, especially in games such as UT2003. However, the owners would still be better off upgrading the videocard before memory or the motherboard.

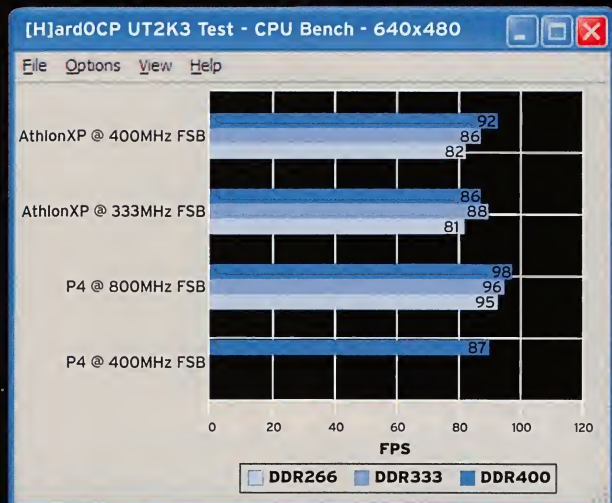
## Gaining perspective

In conclusion, it is clear that by upgrading every time a bump in fsb is announced, you might as well pour those hard earned dollars down the drain. However, if you keep each system you purchase for a period of around 2-3 years, chances are that by the time your next upgrade comes around there will have

## ABIT NF7-S + DUAL-CHANNEL = NO GO?

The motherboard we had originally planned to test with the AMD's processors was the ABIT NF7-S (based on the nForce2 Ultra 400 chipset), as we were confident ABIT's BIOS included all the tweaking options we required. However, we encountered a severe problem installing multiple memory modules, which prevented us from progressing. The board ran flawlessly when a single module was installed, yet, when we attempted to install another module or place memory into a slot other than DIMM1, the system froze upon booting into Windows XP and on reboot we were granted with a corrupted Windows installation. This problem occurred regardless of the different memory timings/speeds we had tried. In the end, we used a Soltek board. We'd notified ABIT of the issue and, thankfully, they are working on it as we write. However, we thought we'd give you a headsup on the matter just in case you experience similar issues and are not sure what's going wrong.

been significant frequency advances, making it a more viable opportunity to upgrade, as seen when moving from a 400MHz fsb on the Pentium 4 to an 800MHz fsb. Remember that we're focusing on games performance - other applications might notice more of a performance boost with higher memory and fsb speeds. As far as memory speed goes, simply endeavour to run both your memory and fsb at synchronous speeds for maximum performance. If this is not possible and you have an adequate amount of onboard memory on your videocard, chances are you will not notice much of a difference between memory speeds in gaming applications.



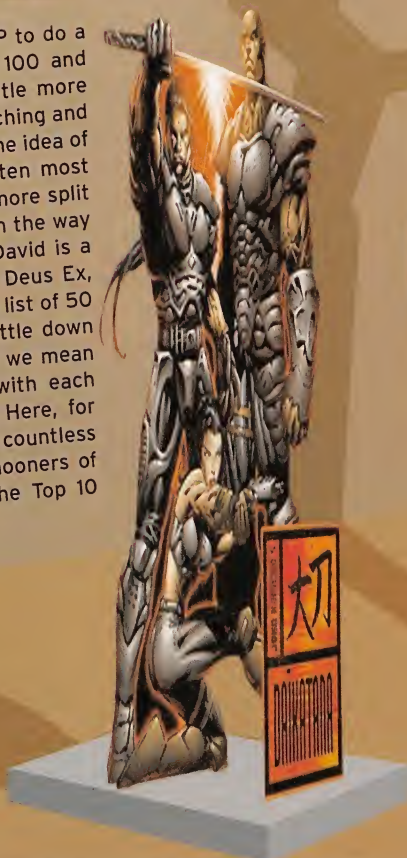




# THE TEN MOST IMPORTANT PC GAMES OF ALLTIME



The time has come once again for PCPP to do a list - it's too soon to do another Top 100 and although fun, a Worst 100 would be little more than page filler so after some soul-searching and a few in-house punch-ups, we hit upon the idea of doing a list of what we think are the ten most important PC games of all time. A few more split lips and bloody noses later (never get in the way of a geek and their favourite game - David is a wildcat if you say anything bad about Deus Ex, Torment or CM4), and we had the initial list of 50 something games. We then had to whittle down to the final ten, which by whittle down we mean go to the pub and drunkenly argue with each other until we came to a conclusion. Here, for your reading pleasure, is the result of countless hours of arguments and countless schooners of overpriced and watered down beer, the Top 10 Most Important Games of All Time.





## Civilization



Year: 1991  
Developer: Microprose

Aside from arguably being the finest example of turn-based strategy ever created, Civilization stands out as being one of those few games that is endlessly replayable and totally self-contained - no patches, mods, other players or expansion packs are necessary to prolong its life. Whilst this in itself does not make Civilization an

important game and the turn-based strategy genre is too small to give its influence any real credence, the lasting importance of Civilization is far subtler and pervasive. In an era when games are becoming far more aesthetically pleasing, more often than not at the cost of innovation, Civilization (and its sequels) prove beyond a shadow of a doubt that gameplay is a far

more important aspect of a game than graphics (though we do agree that a mixture of both is desirable). Although firmly based in RTS tropes, the recently released Rise of Nations can be seen to be a tribute to Civilization with little changed apart from the move into realtime. Whenever you see a detailed tech tree in a game, you know you can give thanks to Sid Meier for Civilization.



### BUT WHAT ABOUT... CIVILIZATION 2

If there's a game better than Civilization, it's Civilization 2, which took all of the strongest aspects of the ground breaking original and made them stronger. More cultures, more units, more buildings - more everything. Civilization 2 has everything, a self-contained world that needs nothing to extend gameplay aside from the almost criminal amount of time it sucks from your life.

What's a list without a little bit of controversy? It should be fairly obvious with this wildcard choice that the crew here at PCPP doesn't necessarily equate high quality with importance and vice-versa. Daikatana deserves its place on the list because this game had, more than anything, heralded the birth and death of the concept of 'game designer as rock star'. If you remember the copious

amount of print advertising that circulated for the much-anticipated game, the ads promised, amongst other things, that John Romero would 'make you his bitch'. So much of the game's marketing was centred around making Romero look like the second coming of a digital Christ, and when the game failed due to poor level design, engine flaws and the overall craptastic nature of the product,

Romero was written off in the world of game design, having only recently re-emerged with the terrible Hyperspace Delivery Boy and the recently announced N-Gage port of Red Faction. How the mighty have fallen. Daikatana also stands as a landmark because it was one of the first real wake up calls in the gaming world warning us not to listen to PR hype.

## Daikatana



Year: 2000  
Developer: Ion Storm

### BUT WHAT ABOUT... DUKE NUKEM FOREVER

Beating Daikatana at its own game is Duke Nukem Forever - a game so lost in development limbo that even the distributors have written off the financial loss. Once billed as the game to end all games, the public has not seen new screenshots for three years, prompting many to believe the game will never be finished.



## Doom



Year: 1993  
Developer: id Software

Not too long after the release of Wolfenstein 3D, the first acknowledged FPS, id took the gaming world by storm again with a little game named Doom. If Wolfenstein made the FPS, Doom made the FPS popular, taking it from a novelty where you get to live out all your Nazi killing fantasies to an immensely addictive, horribly violent and graphically spectacular (for the time)

phenomenon. Pumped up to a spectacular, crystal clear 320x240, Doom was a feast for the senses. Doom showed the gaming world there were perspectives other than side on, forced, or top-down. Using a combination of firstperson perspective and sprite-based objects, Doom was one of the pioneers of what is commonly referred to as 2.5D - not quite real 3D. Doom captured the heart of

games worldwide and can be seen as singularly responsible for the meteoric rise of the firstperson shooter as one of the most popular and technically innovative game genres. Without Doom we wouldn't be so eagerly awaiting Half-Life 2 and it's doubtful if graphics card technology would have progressed as far as it has without the hungry FPS animal to drive it.

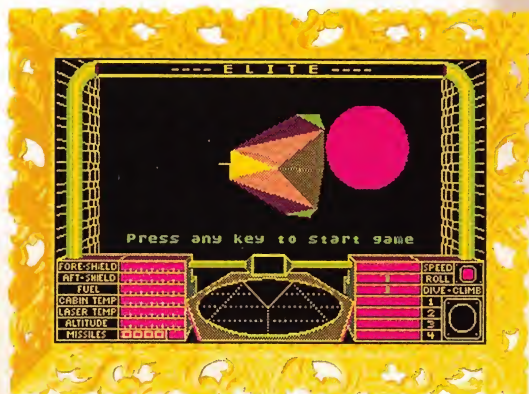


### BUT WHAT ABOUT... QUAKE

Doom may have popularised the FPS and contained a multiplayer option but it was a later id product, Quake, that truly popularised online play, allowing for TCP/IP connections and establishing the now commonplace server-client protocol, resulting in stable, fast and stupidly addictive online play. Although often credited as the first true 3D game, that honour actually falls to Terminator: Future Shock, released earlier in 1996.



## Elite

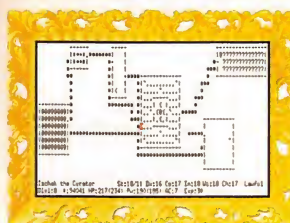


Year: 1987 (1985 C64)  
Developer: Acornsoft

Two years after taking the Commodore 64 gaming world by storm, Elite blasted onto the PC, changing the way gamers and developers looked at game design. Elite offered players near unlimited replayability by featuring eight galaxies, each with hundreds of planets to explore and trade with. Players could take the role of a humble trader, a pirate, mercenary or a mixture of any

of the above - so long as it involved a ship, some guns and cargo you could do just about anything. Not bad for something that fit on a single 5 1/4" floppy with ample room to spare. The lasting influence Elite has had on game design is both manifest and subtle - only a few games have sought to emulate Elite (Freespace, Privateer, Freelancer, etc), but the increasing trend in non-linearity in games can be

traced back to the old DOS space simulator. It's doubtful that games such as Morrowind or GTA 3 would have been created without the influence of Elite - it proved, without a doubt, that whilst a strong story will drag players into a game, massive replayability and scope for exploration will keep them coming back time and time again.



### BUT WHAT ABOUT... ROGUE STYLE GAMES

When talking about non-linearity and replayability it's damn hard to avoid mentioning Rogue style games such as Nethack, Rogue, Angband, Moria or ADOM. Using ASCII characters to represent terrain, objects, creatures and characters, the majority of Rogue style games allow players to create a fantasy character and battle their way through a randomly generated dungeon.

If you think we're including Half-Life on this list because it introduced in-depth storylines to FPS gaming then you'd be partially correct. While we do believe this is an important factor in the evolution of the shooter, the addition of a deep plot is little more than an excuse for the action. The real reason that Half-Life deserves its place on this list is because it showed the gaming world two very

important and inter-related things - the power of community and the power of the mod. Without the community there could be no modding scene, without the modding scene there would be no community. Few people today still play Half-Life deathmatch, but many play Counter-Strike and Day of Defeat, the two most popular mods for the engine. Five years after the

initial release, Half-Life is still the most popular game engine for modders, keeping the game alive far beyond its use by date. Seeing the success of Half-Life, nearly every other developer followed suit by releasing source code and mod engines, and though some of them have achieved success, no other game has achieved the modding success of Half-Life.

## Half-Life



Year: 1998  
Developer: Valve Software



### BUT WHAT ABOUT... NEVERWINTER NIGHTS

Although many players complained about the lacklustre singleplayer campaign, the wealth of mods available and the ease with which a player can create their own adventure, Neverwinter Nights should remain a force to be reckoned with for years to come.

## Starcraft

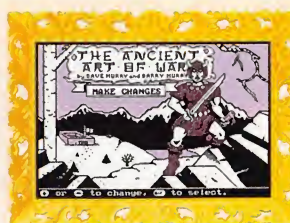


Year: 1998  
Developer: Blizzard

Sometimes being the first is less important than being the most popular and becoming the benchmark for what is expected from a genre. Starcraft is far from being the first acknowledged RTS (that honour goes to Dune 2 back in 1992), but its continued popularity five years after release attests to the game's staying power. Considered by many to be the greatest RTS of all time,

Starcraft took all of the terrific mechanics that made Warcraft so addictive, tweaked them to make them even better and gave players a massive campaign and three well balanced races to play. Exactly what made the game so phenomenally successful is something of a mystery as other games played just as well, but faded into obscurity. However, the fact remains that Starcraft has become the

benchmark against which all other RTS games are measured. No mention of the importance of Starcraft would be complete without a mention of online multiplayer. Starcraft popularised the online RTS, and is still played as avidly as ever - in South Korea it's even classified as a national sport and the champions are celebrities making a very serious wage.



### BUT WHAT ABOUT... ANCIENT ART OF WAR

Although Dune 2 is usually credited with being the first RTS, the real godfather appeared in 1984. Ancient Art of War allowed players to plan and fight battles in the days of yore. Although primitive by today's standard, AAOW featured all of the common RTS actions - building troops, micromanagement of resources and large-scale realtime combat.



## The Sims



Year: 2000  
Developer: Maxis

Okay, Little Computer People released for the C64 and Apple 2 in 1985 may have been the first life simulator, and though moderately successful (more as a curio than an actual game), Little Computer People planted a seed that would later become The Sims, a game that will go down in history as being very important for two different but closely related reasons. You only need to

look at a sales chart to know that The Sims is without a doubt the most popular game of all time. Nary (if ever) a month has gone by without at least one Sims product being at the top of PC sales charts - to say that The Sims is a little successful is like saying that Freddy Prince Jr. is only a slightly bad actor. With the recent port of the game to all next generation consoles

(including a GBA version sometime soon) it's doubtful we'll see The Sims disappearing any time soon. Of equal importance is the fact that more than any other game, The Sims has served to, for want of a better term, legitimise gaming, bringing it out into the open. It's not just dedicated gamers who play The Sims, it's everyone.



### BUT WHAT ABOUT... MYST

Before The Sims blew every other game out of the water in terms of popularity, Myst was the most popular game of all time, selling a whopping 7 million units. Much like The Sims, Myst achieved its phenomenal success by appealing to a mass market. That's right - girls and old people played Myst, too.

When we sat down to work out this list we initially aimed to have one entrant from each game genre and then fill in the remaining slots with wildcard entrants. Deciding on what we believe is the most important and influential RPG of all time was one of our easier tasks. When looking through the annals of RPG classics you'll constantly find classics but none more detailed, interesting

and revolutionary than Ultima 4. Unlike nearly any other RPG before and since, Ultima 4: Quest of the Avatar was concerned more with roleplaying than with the acquisition of magic items and XP. Players assumed the role of a character seeking to become the Avatar, the embodiment of ultimate good so as to be able to defeat the ultimate evil. As such, you had to fulfil the eight virtues

to prove you are truly a great person. Instead of simply performing quests to fulfil the criteria, Ultima 4 took note of everything the player did from stealing to attacking monsters when they try to flee - act dishonourable and you'll never complete the game. Now, if that ain't true roleplaying then nothing is.

## Ultima 4



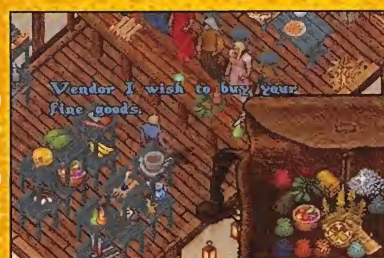
Year: 1985  
Developer: Origin



### BUT WHAT ABOUT... PLANESCAPE TORMENT

Reportedly containing over 1,000,000 lines of text, Planescape Torment is a raging juggernaut of a story, prompting many players to revisit this classic just to try out other conversation options. The only downside is after playing this classic, everything else seems a little twee. Torment proved once and for all that games could feature strong, adult oriented plots.

## Ultima Online



Year: 1997  
Developer: Origin

It may not have been the first MMORPG but Ultima Online was definitely the first successful entry into the genre. Launched in 1997, Ultima Online lit the gaming world on fire with its combination of a huge persistent online world with players having nearly unlimited freedom to do what they pleased. If a player wished to take the part

of a great warrior they could, likewise, they could play spellcasters and thieves. But what sets Ultima Online apart from the rest of the competition is that players could become butchers, hunting for meat and selling it at market, tailors making cloaks for the nattily dressed warrior or nearly any other real world occupation you can imagine.

Before you condemn us for not including Everquest (there are always semi-abusive letters from Everquest players if we fail to mention the game), we chose Ultima Online as it is doubtful that Everquest would have been as successful, or even if it would have been released at all, if not for the formula created by Origin's groundbreaking Ultima Online.



### BUT WHAT ABOUT... MUDs

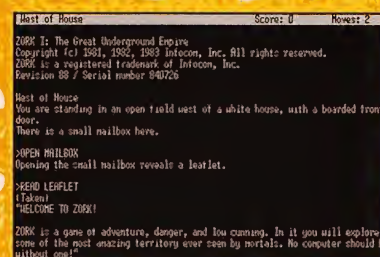
Although Ultima Online kicked off the rise of the MMORPG, it's unlikely that it would have ever existed were it not for MUDs (Multiple User Domains) - online text based roleplaying games in which groups of players can interact and adventure. They might not be the most graphically impressive but for thousands, MUDs were their introduction to roleplaying and online gaming.

Ported over from mainframes in the late 70s, Zork: The Underground Empire is the granddaddy of all text adventures (or interactive fiction games for all you fans). Sure, there were a couple of similar games but these fell into obscurity whereas Zork became something of an icon amongst gamers. The reasons for Zork succeeding could range from

timing to simply other games being crap, but one thing is certain, the success of Zork is directly responsible for the rise of text adventures and, a little further down the track, was very influential in the development of graphical adventure games, such as King's Quest, Space Quest and the classics from LucasArts. Featuring 110 rooms to explore, a

quirky sense of humour and unlimited replayability due to some random events, Zork set the format for area descriptions and puzzles for years to come. Officially declared freeware by developer, Infocom, and available for download, Zork definitely shows its age, but its place in history is undeniable.

## Zork



Year: 1982  
Developer: Infocom



### BUT WHAT ABOUT... BROKEN SWORD 3

Although not yet released, Broken Sword 3 looks like it will either herald a new dawn for the dying genre that is adventure gaming or be its last hurrah. By combining old school adventure mechanics with modern dressings, such as full 3D and realtime events, Broken Sword 3 seeks to reinvent the genre - only time will tell if it's successful or not.



# IN REVIEW



**I**'d love to be a bear. That way, I could hibernate through this boring time of the year, and wake up in September to a glut of quality Christmas game releases. Sadly, I'm not big, fat and furry (although the older I get the less untrue this statement becomes), so I have to put up with the severely talent-lacking games that get pumped out during this quarter. As you can see from our game review sections, Triple A titles are rather thin on the ground, right now. Thank god, Half-Life 2, Halo, LO:MAC and a bunch of other high quality games are just around the corner, although it appears Doom 3 isn't going to hit the PC until 2004. Gee, we didn't see that one coming, particularly after watching Half-Life 2 steal all of id's thunder at this year's E3. Back to the drawing board, Mr. Carmack. Midnight Club 2 takes out the honours this month as the hottest game review; if you fancy yourself as a bit of an arcade racer, or just want to feel like Vin Diesel in The Fast and The Furious, we've got a feeling you're gonna have a blast with this game. Then there's Republic. What a disappointment this turned out to be, although when a game tries to be this much of a genre buster there's a high chance it's going to bite the big one. Oh well, we can't complain too much when we've got top notch racers such as Dirt Track Racing 2 selling for a meagre thirty bucks.

Thankfully, the hardware we checked out this month made us feel a little better about the lacklustre game releases. After testing thirteen different LCD TFTs, my eyes felt like wet snooker balls that had been dropped into a sandpit, but at least I managed to figure out which monitor is most deserving of your hard earned. A few litres of Clear Eyes(tm) returned my bloodshot eyes to a state where I was able to check out the ultra cool, ultra expensive Philips DesXcape wireless monitor. Yes, a wireless monitor. Now we just need a wireless CPU, a wireless hard drive and a wireless memory module, and we'll finally be living in a wire-free world. Apparently, that's something to get excited about. Anthony had a tinker with an MSI motherboard based on VIA's new KT600 chipset, but it doesn't look like the nForce 2 Ultra has anything to worry about. And as per usual, we had a look at a few very cool gadgets, from touch screens thingies that fit onto your monitor, to an internally mounted H2O cooling kit that is pretty much pre-built.

Finally, we've got the first instalment of our PowerTools up and running, and these are going to be used for all of our CPU/motherboard and memory reviews. Head over to page 104 to check out the good stuff. As ever, if you've got any feedback feel free to drop me a line at [bennetttr@next.com.au](mailto:bennetttr@next.com.au). Remember, I don't bite... hard.

**Bennett Ring**  
Deputy Editor,  
[bennetttr@next.com.au](mailto:bennetttr@next.com.au)

## PCPP TECH REVIEW SYSTEM

Here at PCPP we scour the land for the latest in PC technology, then ruthlessly test it in the decentralised hardware democracy that is the PCPP Tech Bunker. A hardware review is much more objective than a game review - there are quantifiable elements to most bits of good kit, and the benchmark, as always, reigns supreme. We take into account the performance of a product first, but price is also a factor. We provide reviews of hardware you can expect to afford, as well as the occasional item that's too cool not to review.

All our review products are compared against at least one leading brand to give a meaningful indication of performance and what you can expect should you actually buy the thing and put it in your precious machine.

Each product is rated out of 100, where a higher score indicates a better balance of price and performance. For items where the prices is low and performance is not relevant, such as modding accessories, a more subjective analysis of the product is undertaken, where we use our experience with such items to determine whether or not they'll help make your machine look cooler or just plain tacky.

Finally, those products that are 'must have' items receive the coveted PC PowerPlay Gold award. This award is reserved for hardware that is serious kit, indeed, and will improve your PC so it's well worth the investment.

### GOLD AWARD



The ultimate accolade. A game that receives a Gold Award is an essential purchase, and the only excuse for not owning it is either not having a powerful enough PC, or not having a PC at all. Or arms. It represents a new direction in gaming, a new benchmark against which all others will be measured. It defines its genre, or creates a new one. It is gaming. You must own it.

**90+**

### HIGH DISTINCTION



This is the finest in gaming. A fresh concept, a perfect execution, a meaningful extension to a tried and tested format, one or all of these are required for this score. We strongly recommend the purchase of each High Distinction game, but extremely fussy gamers may want to skip those HD games that don't also receive Gold Awards.

**85-100**

### DISTINCTION



An intriguing new concept or a bold new direction that manages to pull its new trick off with a reasonable degree of flair. You will be impressed, at either the graphics, the gameplay or some other new element that you may not have encountered before. Or perhaps this is a familiar gaming concept, but one executed so well it's almost - but not quite - an essential purchase.

**75-84**

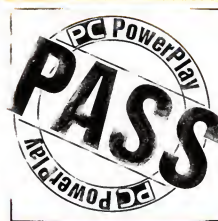
### CREDIT



Solid, playable, largely bug-free, entertaining and maybe even a bit unexpected, these are the hallmarks of a game of Credit. You may have seen it all before, but you won't mind, because a Credit game does what it says on the box - it plays well and it keeps you hooked. An essential purchase? Not necessarily, but worth consideration.

**65-74**

### PASS



A game that receives a pass is playable, but its concept may be flawed, its extras may be lacking or its graphical enhancements may have fallen off somewhere in a lengthy bug-fixing process. And bugs there may be, although in the end the game will, as we say, work. Purchase if you're curious, but discerning gamers will probably look for something more substantial.

**50-64**

### FAIL



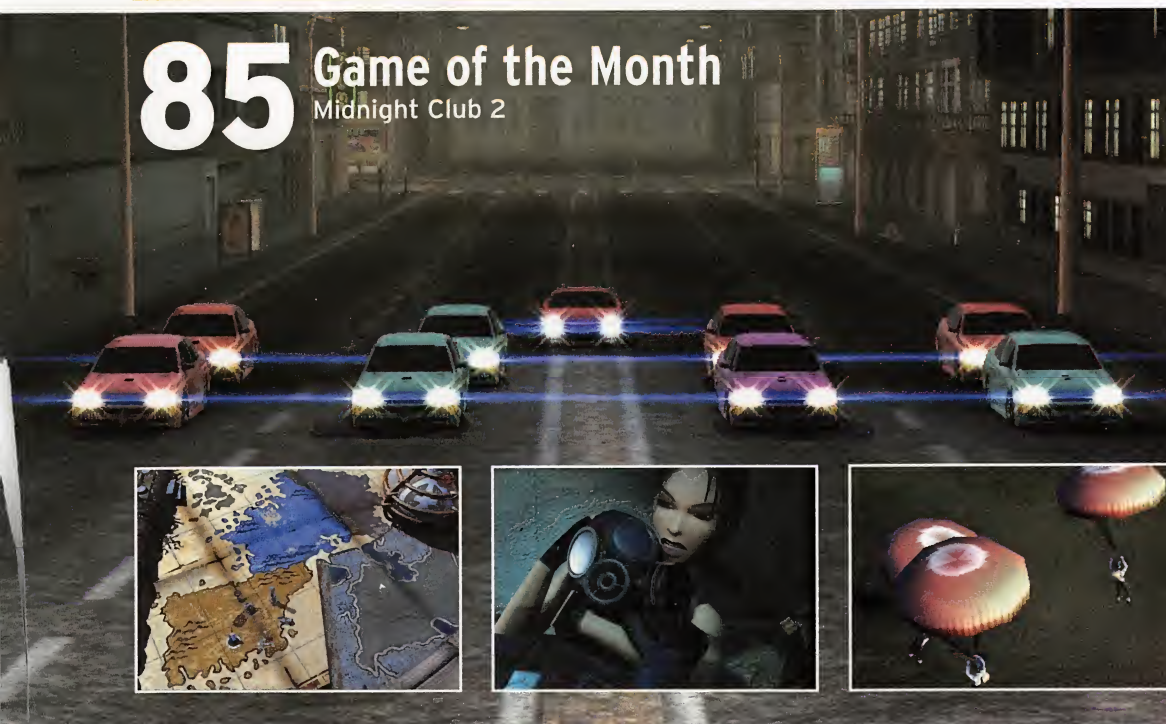
There are more than 5000 games released each year. Some are gems. Some are merely unremarkable. Others are nothing more than a shameless grab for cash. Graphics will be rudimentary and gameplay will be worse. If you see someone considering a game that has failed, gently take them by the elbow and hurl them out of the shop. It's your duty as a good citizen.

**0-49**



# GAMES

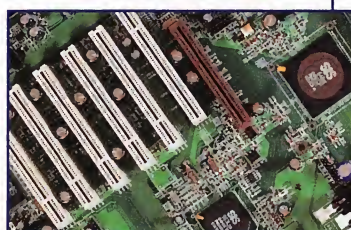
## 85 Game of the Month Midnight Club 2



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- 102 Philips DesXcape wireless monitor  
Hercules XPS 2.100 Silver





# Republic: The Revolution

The biggest disappointment since Black & White

Developer: Elixir ■ Publisher: Eidos ■ Distributor: GameNation ■ Price: \$99.95 ■ Rating: M15+ ■ Available: Now

## SYSTEM

### NEED

P4-2GHz  
256MB RAM  
64MB videocard  
1GB HDD

### WANT

P4-3GHz  
1GB RAM  
RADEON 9700 Pro  
1GB HDD

### MULTIPLAYER

No

### ONLINE

[www.novistrana.com](http://www.novistrana.com)  
Ironically, this game has one of the best official sites ever. News, interviews and history of the town, including the famous '100 Minutes War' against China. Nuts.

**R**epublic will be a cult hit. Once this game has had time to find its way into the PCs of a very select and particular audience, no amount of calm argument, ranting or brandishing of weapons will convince them that this is not the greatest game ever, the pinnacle of design, the very acme of gaming pleasure.

But what about the rest of us? Republic is not one of those games that immerses, or draws you in, or makes you forget you're playing a game. It doesn't have an interface so streamlined that things just seem to happen as you will them. It doesn't even have graphics that make you wish the real world was this pretty.

What it has is ten thousand obscure icons, graphs, sliders, power-up bars, a collection of abilities and stats that are unfamiliar to anyone without an Honours degree in politics (majoring in Eastern Europe) and a 2D, unanimated 'satellite view' of the game world that you will spend most of your time staring bemusedly at while your agents wander around the city sticking

posters on walls for your cause.

I'm not kidding. Republic is, even after its fairly moderate hyping over the last couple of years, a colossal disappointment. One of those disappointments that has you shaking your head - how could your expectation of this game have been so wrong? Let's take a look.

## Political ambition

Republic's ambition is admirable - simulate the rise to power of a minor political party in a fictitious Eastern European state, called Novistrana, allowing the player to employ all kinds of clever tricks - bullying, assassinations, vote-rigging, etc. An evil dictator has assumed power and makes all other political parties illegal, adding spice to the whole process of canvassing, letter-dropping and speech-making.

Our hero, called the Avatar of the party, has a bit of a bee in his bonnet about the dictator, Karasov, since the dude kidnapped the Avatar's parents and shuttled them off to one of the country's many work camps. An

unspecified number of years later, armed with a degree in politics and funky leather jacket, the Avatar arrives in the town of Ekaterine, ready to start kicking butt and trashing gift shops on protest marches.

That's the set up. By now, with the game's opening movie complete and a fairly ordinary 3D view of a town hall on your screen, you're about ready to start playing. Off you go, then.

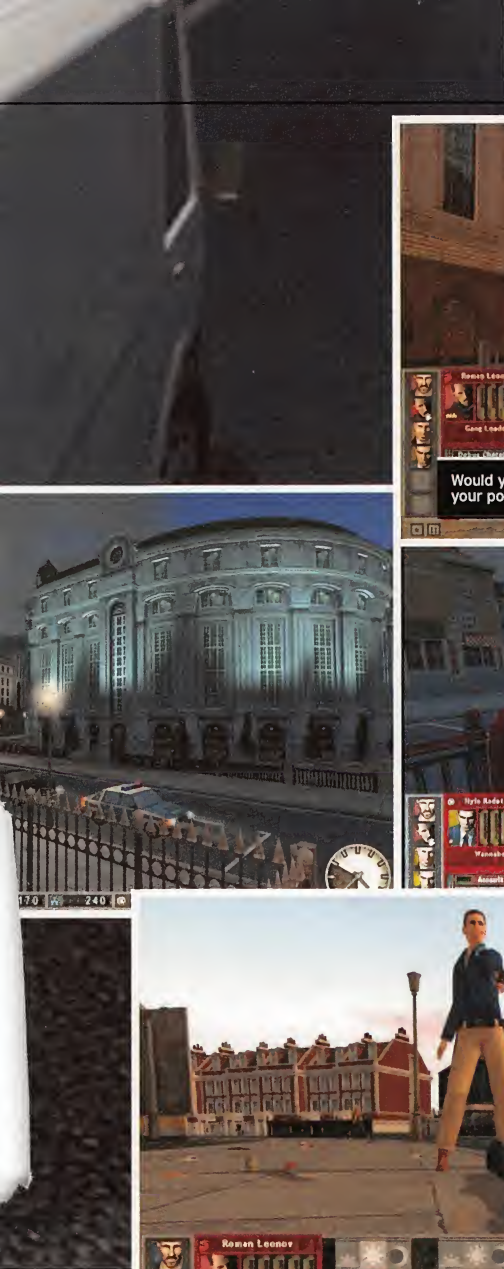
## Mr. Speaker, WTF?

What do you mean you have absolutely no idea what you're supposed to do, let alone know where you're supposed to start? Don't you HAVE the afore mentioned Honours degree in politics? Don't you understand even the basics of how to start a political party? Haven't you read Mein Kampf (for the politics bits, not the crazy Jewish conspiracy bits), the Communist Manifesto or the recent history of Cuba? Are you not, in short, a politics junky? Were you expecting some kind of hardcore RTS where you could end up in control of a nation's military and roll tanks down the main street in a glorious military coup? Man, did you buy the wrong game.

Eventually, you'll probably spot the little icon in the bottom right of the screen which pops up a window with a list of objectives in it. Objective one - recruit a right-hand-man.

**Were you expecting a hard core RTS where you could control a nation and roll tanks down the main street in a glorious military coup? Man, did you buy the wrong game.**





Okay, then. After thrashing ineffectually at the keyboard for a while in an attempt to get the game to respond, you'll stumble across the 'satellite view', which exchanges the 3D game world for an overhead map, like a street directory. Little faces will appear at various points. Try clicking on them. Nothing

## CONVERSATIONS

Just when you thought Republic couldn't get any more obscure, along comes the conversion system where you have to convince people to your cause. Basically, you assign a set of points to various elements of an argument (ego boost, cajole, threaten, joke, etc) and then try to match them against your opponent's points (disbelieve, criticise, etc). It's a game of trumps, basically. If your points are consistently higher than his points, you win the argument. In an effort to model the vagaries of the individual, Elixir has unfortunately turned real people into decks of cards. Too much abstraction, not enough immersion.

happens. Try clicking on the Avatar's icon in the bottom left of the screen. A menu of actions pops up. Click head hunt. Nothing happens. Click head hunt, and then click one of the heads. Another window opens showing some stats on the person you've selected. Nothing happens. Time passes. Eventually, your avatar's icon on the satellite view moves slowly to the other agent's icon, and nothing happens. If you're playing on 'easy' mode, after a bit more of nothing happening, a second face will appear under your Avatar's icon, and voila, you have a new member of your party.

Right about now you're reaching for the manual, the first time you've done this since Falcon 4.0. This game is anti-intuitive. There is no way to determine what to do next without reading, reading, reading. You will curse all the dumb FPS games that had pointless tutorials while this complex enigma has nothing. Even the manual is written like a politics textbook: "Successful Support Attacking Actions turn Proles to a Neutral outlook; get ready to follow up with a Support Gathering Action", as it says in the 'Getting Started' section on page 12.

## REALTIME CUTSCENES

Republic's hype was all about its living city. A massively detailed game world where you could zoom in to unprecedented levels of intimate detail. And indeed, the game does generate a whole town full of citizens. Unfortunately, it's totally pointless. The 3D view, despite looking like something from the late 90s, is so difficult to interact with you will spend most of your time on the 2D satellite view. The game generates information about the occupants of individual buildings, which you will never need to know. The level of detail clogs the game, slows it down, and results in the insane system reqs. There's no interaction to speak of. GTA for politics junkies, this ain't.

## No Quorum

If by lucky chance you have an IQ of 172, a keen interest in politics and used to run Resistance, the International Socialists or some other left-wing student political organisation, you will eventually discover a deep and detailed game buried somewhere under Republic's layers of obscurity. There are lots of things to do, all geared toward gathering support for your party in different zones of the city until you dominate the whole town and move on to the next location.

But, oh boy, is it abstract. You will spend most of your time on the satellite view because it's the easiest way to see how much support you have in different districts. The characters who make up your faction are important for your success but slots are limited - in the first town you only have room for three other guys, and have to keep hiring and firing, juggling your inner circle to accomplish particular tasks.

Basically, Republic would have made an excellent board game for politics students. It's designed like a board game - it relies heavily on the player's imagination filling in for the lack of animation, interaction and graphical splendour. The amount of information that has to be managed is massive, but the methodology of managing that information is tedious. The interface is woeful. The game fails to communicate with the player effectively.

Like I said in the opening paragraph, this will be a cult hit. Small groups of highly intelligent politics students will gather around flickering CRTs and debate whether or not to engage in a leaflet drop or a poster campaign, too wrapped up in their own personal politics to notice the lack of graphics that actually move. But for the rest of us, Republic, like Hitler's Mein Kampf, is a text best left unread.

Anthony Fordham

## RATING



### FOR

Original concept  
Detailed game system  
Big game world

### AGAINST

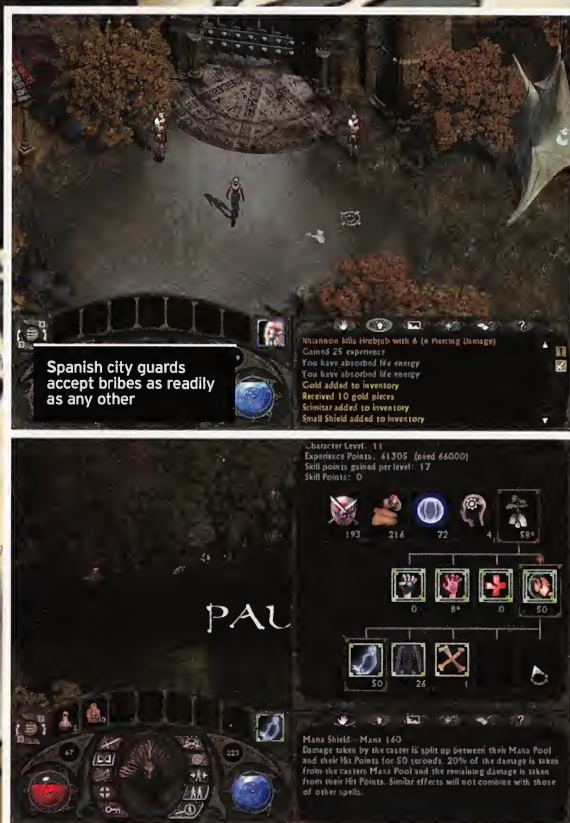
Inaccessible  
Abstract  
Ordinary graphics

### OVERALL

As a board game, it would have rocked. On PC, it's totally obscure.

64





# Lionheart

No one expects the Spanish Inquisition

Developer: Black Isle ■ Publisher: Black Isle ■ Distributor: Vivendi Universal ■ Price: \$89.95 ■ Rating: M15+ ■ Available: Now

## SYSTEM

### NEED

P3-600MHz  
128MB RAM  
8MB videocard  
2GB HDD

### WANT

P3-1GHz  
256MB RAM  
32MB 3D videocard  
2GB HDD

### MULTIPLAYER

Yes

### ONLINE

[www.medievalcrusades.com](http://www.medievalcrusades.com)

Instead of causing the Disjunction and letting magic flow back into the world, the real Crusades caused the deaths of countless thousands of Christians and Saracens (the Crusader's catch-all term for Muslims) alike - find out when, why, who, how and where.

Seeing the now familiar Black Isle splash screen is the digital equivalent of a big warm hug for RPG players, giving a genuine feeling of comfort and reliability. Lionheart, its latest RPG, will do nothing to dispel this image as the game serves up what we have come to expect from the popular development house; great story, good looks and countless hours of absorbing RPG fun. Taking a leaf from Arcanum's book, Lionheart mixes real world events with fantasy elements to come up with a truly immersive world. At the culmination of the Third Crusade, King

## MULTIPLAYER

Although we haven't been able to test it yet (not enough copies of the code), Lionheart features a multiplayer component allowing for up to four players to make their way cooperatively through the campaign. Players are able to export their character from the singleplayer game so they can get more experience and items, but you don't need to worry about a new game being too easy because of high-level characters. Each combat section of Lionheart gauges the threat level of the party so as to throw appropriate opponents at them.

Richard the Lionheart finally proved to be victorious over Saladin, ruler of the Saracens, conquering his capital in the process. When a ransom was not paid, The Lionheart heeded the advice of one of his advisors, putting 3000 prisoners to death. The advisor was not all he seemed. Unfortunately for King Richard and the world at large, these 3000 deaths in the Holy Land were the last component in an ancient ritual known as The Disjunction, causing a rift to open up and allowing demons and magic to flow over the world. Seeing the danger, King Richard and Saladin joined forces against the darkness, however, although the victors of the battle, they could not win the war. Spirits and demons bound with bloodlines giving birth to demi-human races, the Demonkin, Feralkin and Sylvant. Supernatural creatures staked out their turf. Bad things happened. The year is now 1588 and the Knight's Templar and the Order of Saladin continue their ongoing fight against the demons whilst in the background the Spanish Inquisition root out magic users and those tainted by foul spirits.

Primarily a singleplayer game, Lionheart casts players as the Scion of Lionheart, the progeny of one of King Richard's illegitimate children, possessed by a spirit intimately bound with his

bloodline. After escaping from slavers, the character is teleported to Barcelona by none other than Leonardo Da Vinci, the inventor and mage. After a brief chat, the player is free to explore the great Spanish city, performing quests for various inhabitants and eventually joining one of the three major factions in the city, the Knights Templar, Inquisition or Wielders, a group of secretive magic users who hide from the Inquisition whilst plotting its downfall. Although these factions have specific bents towards combat, investigation/information and magic respectively, the lack of any defined classes means that players can join whatever faction they choose.

## Your character's mettle

Lionheart utilises the SPECIAL character system initially developed for Fallout. The system is incredibly easy to use, giving the player some skill points to distribute every level and allowing them to choose a perk at every three, ranging from simply adding stat points to selling your soul to the devil in return for combat prowess. Combat is also easily accessible, resembling Diablo or Dungeon Siege more than other Black Isle RPGs. Entering combat is a simple matter of left clicking on a target. The right mouse button is





used to cast whatever spell is currently selected and seven quick slots allow for rapid use of items or to change spell selection. Much like in Baldur's Gate, players have the option to pause the action with the space bar, allowing the player to plan actions or select spells/items at leisure, but you'll rarely find yourself using the feature due to the emphasis of action over strategy. This simplistic approach may be off-putting for some Black Isle fans but it does serve to make combat just another element of the game rather than the focus. Another factor that will doubtlessly alienate some RPG fans is that aside from telling them to follow or stay put, the player has no direct control over companions - the AI does all the work. Luckily, the companion pathing is quite good so you'll rarely have to put up with companions running into walls or getting stuck behind trees.

The greatest strength of Lionheart is the wealth of subquests and the colourful historical/fictional characters you can interact with. Within hours of starting the game you might find yourself helping Leonardo Da Vinci with his inventions, looking for William Shakespeare's lost muse, fighting alongside Miguel Cervantes (author of Man of La Mancha) against his inner demons or questing for treasure with the one armed Conquistador, Hernan Cortez. Throughout the events of the game you'll come in contact with other historical

figures including Nostradamus, Torquemada and Joan of Arc. Although not historically accurate (see boxout), there is a definite thrill in meeting and interacting with these famous figures and the draw of who you could possibly run into next will keep you playing way past your bedtime.

### Pretty as a picture

Lionheart presents a great looking world using the now tried and true forced perspective pre-rendered backgrounds Black Isle is so famous for. Each of the myriad locations looks fantastic and are populated by some well-designed and animated enemies. Likewise, the voice acting is excellent with all of the historical characters having some great dialogue

### HISTORY'S GREATEST MONSTERS

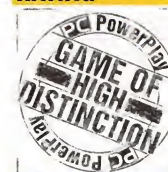
Although not aiming for historical accuracy, a few of Lionheart's characters have dark pasts making it a little uncomfortable for any scholar of history to work with them. Although portrayed as a heroic and somewhat noble figure in the game, Hernan Cortez was the Conquistador responsible for the near genocide of the Aztec race when he was sent to conquer the Americas. In this alternate Earth, Torquemada, the head of the Inquisitions, is also portrayed as a wise and noble man, not as a megalomaniac zealot responsible for the torture and death of countless innocents accused of heresy or witchcraft.

(with Marco Polo's boots being a real standout). For the most part, the soundtrack is nice and evocative with some nice Spanish tunes and a few rousing orchestral tracks. Unfortunately, Lionheart also contains some of the most inappropriate tracks yet heard in an RPG with a number of quasi-electronica/dance tunes that you'll be sick of after hearing them only once.

Ultimately, the only thing holding Lionheart back from being an absolute classic is that the ground it walks upon has been trod before. Arcanum established the magical/real world setting, Fallout introduced the excellent skill and levelling system and the combat is highly reminiscent of the majority of action RPG games. Although the originality of the story is doubtless, the player sometimes gets the feeling it's been done before. Luckily, Lionheart is such a polished product that you won't care about the lack of innovation because you'll be too engrossed in the Machiavellian plot (he shows up in the game, too). Any RPG fan should consider Lionheart a definite purchase - it may lack innovation but it certainly doesn't lack deep, compelling, rock solid RPG action.

Daniel Wilks

### RATING



#### FOR

Great characters  
Engrossing plot  
Tons of subquests

#### AGAINST

Lacks innovation  
Misplaced electronica

#### OVERALL

Technically not the most innovative, but a compelling story and solid RPG action.

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# WW2: Frontline Command

Another notch in the bandolier for The Bros.

Developer: The Bitmap Brothers ■ Publisher: KOCH Media ■ Distributor: Take2 ■ Price: \$69.95 ■ Rating: M ■ Available: Now

## SYSTEM

### NEED

P2-500MHz  
128MB RAM  
16MB DirectX  
750MB HDD

### WANT

P3-800MHz  
256MB RAM  
32MB DirectX  
1GB HDD

### MULTIPLAYER

Up to four

### ONLINE

[www.mrbrown.com](http://www.mrbrown.com)  
He's Singaporean, funny and little bit mad. But, then, aren't we all?

**Things shine brightly at unit level, where with a quick click, troops or vehicles can be directed to ambush the enemy, defend their location or change formation**

**T**he Bitmap Brothers is no stranger to enjoyable and successful strategy titles, so the company's foray onto the well-trodden WW2 path always promised something new for the genre. Z and Steel Soldiers hid remarkable depth and attention to detail behind the laughs, all of which augured well for WW2: Frontline Command. The Bitmap Brothers has kept the best elements of the earlier hits, refined a few RTS mainstays, and tackled some of the persistent control problems that wreck so many strategy titles. The result is an engaging tactical-level combat game that neatly balances a near intuitive interface with fast-paced play and high levels of historical realism.

Frontline Command covers the full sweep of the war's historic closing stages, from the Normandy landings to the death throes of Hitler's Reich. All missions occur

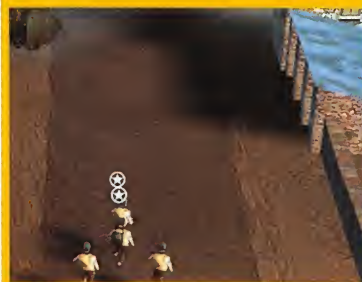
around the edges of the key events that shaped the re-conquest of Western Europe, and the decision not to recreate the major battles themselves will suit gamers frustrated with overly complex interfaces and too many units to manage. 25 levels are spread across two campaigns, with the 12 level Recruit Campaign offering a simple but challenging introduction to the game mechanics, and the 25 level Veteran Campaign bringing a non-linear and far more complex tactical experience.

## To begin with...

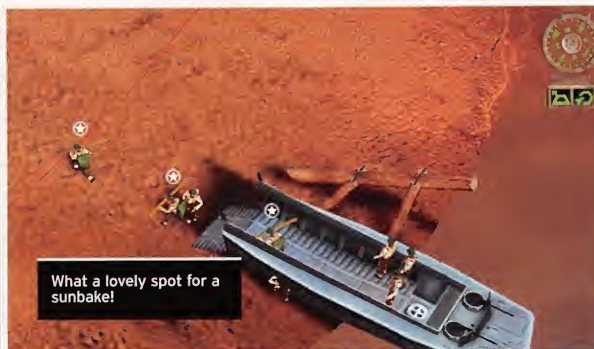
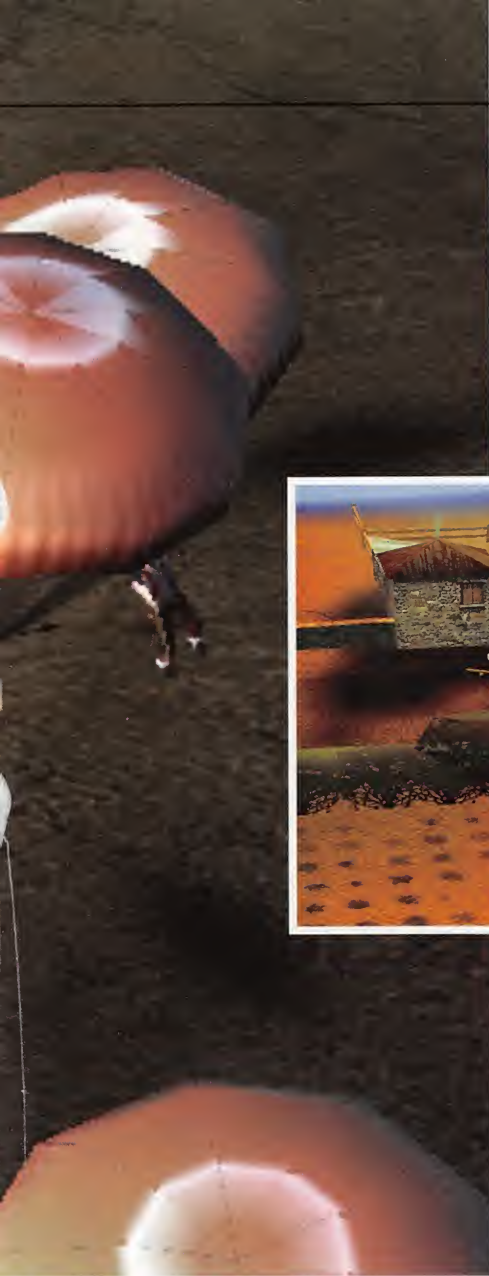
Things kick off nicely with a well presented series of tutorials that cover the basics of movement, combat and camera control. An extra couple of sessions focussing on group commands and some on-screen buttons would help, but players will still be up and running very quickly. After choosing a mission to fight, players are taken to a Mission Briefing screen for an overview of the situation, an outline of the primary objectives and the chance to study a map of the operational area. Veteran games also include optional bonus objectives that affect the way the campaign pans out in later missions. The briefings provide enough detail to get things going without giving the whole game away, and players can still expect a few nasty surprises down the track.

## WW2 GOES 3D!

3D has come late to WW2 games and WW2: Frontline Command provides a taste of what we've been missing out on. Things certainly look terrific, as expected, but the real value of 3D lies in the impact it has on concealment and lines of sight. Engagements are far more realistic than they are in 2D, thanks to the fact that the line of sight to the target takes so much more into account - including obstacles, obscuration and the shape of the terrain. Similarly, genuine opportunities for stealth are presented, allowing players to move troops into position out of the enemy's view.







Frontline Command boasts a strong interface on almost every level, from the uncluttered main screen to the unit status indicators and context sensitive cursors. Selecting a unit displays minimum and maximum weapon range rings, and health and morale are shown on simple bars. A Compass Panel is provided for orientation where players can also access the Overview Map screen or return to the Briefing View; and a Mini-Map that allows quick jumps across the battlefield. A series of icons sits at the bottom of the screen to let players select individual units within a group or assign secondary weapons as needed, but using them is a little cumbersome and most players will opt for the shortcut keys.

Things shine particularly brightly at unit level, thanks to a well designed right-click Order Ring. With a quick click, troops or vehicles can be directed to ambush the enemy, defend their location, change formation or swap between running, walking and crawling. They can also be forced to fire on unknown locations, which can be very useful when enemy units are suspected but not seen, and formations can be set for individual or multiple units. The Order Ring system simply improves an old concept, but it works well and doesn't take too long to master. It's particularly well suited to the generally slow and deliberate tactical pace of the game, although some players will find it tough to manage multiple units once things hot up.

### And to end with...

Frontline Command boasts a good mix of unit types and capabilities. The armour, speed and weapon power ratings apparently reflect their historical performance, and there's no doubt that throwing a Sherman up against a Tiger II is a bad idea in the game. Jeeps, tanks, rocket launchers, trucks and amphibious transports are all nicely modelled, and most missions are well balanced in terms of the equipment available to each side. Other units include towable artillery (exceptionally well handled) and ambulances; in support of riflemen, machine gunners, mortars,

engineers, snipers, flamethrowers and commanders. Unit types are occasionally hard to identify and select at some zoom levels, but things are fine in normal play.

Both experienced and novice strategy gamers will be very pleased with Frontline Command's general gameplay. Objectives are clearly marked, and moving, grouping and controlling units is straightforward and intuitive. The 3D engine enables a realistic line-of-site system that adds to the tension and allows both sides to spring the odd surprise. Movement into and out of buildings and vehicles is well executed, as is the use of standard commands such as ambush orders, area defence and operating equipment. Situational awareness is particularly strong, thanks to a combination of fewer units than most WW2 RTS titles, the presence of decent graphical indicators and the introduction of a hearing system that allows unseen units to be engaged.

Frontline Command also supports multiplayer via LAN or Internet for up to four players. A total of 35 maps are available, with play balance maintained by a simple unit points system. Games can be played in Recruit or Veteran Mode, and the combination of fog of war, 3D line-of-sight and real opponents adds up to a very solid multiplayer experience. Time limits can be imposed, the assassination of enemy commanders can be selected as an alternative victory condition, and defeated players have the option seeing how things pan out in Spectator Mode. A decent summary of the results are provided at the end of play, including key player statistics, kill ratios and total playing time.

The Bitmap Brothers has proven that it can handle drama just as easily as comedy and that real world RTS games don't have to be overly complex to provide a challenging and enjoyable experience. The game has a tactical depth and level of detail equal to any WW2 title, the control system is far better than most, and it looks great. WW2: Frontline Command is a solid addition to an increasingly popular genre.

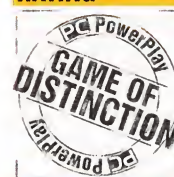
Des McNicholas

## ABSOLUTE COMMAND AND CONTROL

WW2 Frontline Command takes an inherently complex tactical environment and throws a superbly simple command and control interface over the top. The context-sensitive cursor sets the scene, highlighting movement restrictions, attack options, secondary weapons, pick-ups, ammunition status and re-supply vehicles. Further utility is added by the right-click Order Ring, which varies in accordance with the unit type and range of options available. Combined with a segmented direction indicator, the Order Ring makes setting ambushes or defending approaches a breeze. It's all rounded out by excellent on-screen indicators, including range rings, movement paths and quick formation buttons, which are supported by a small set of hotkeys.



## RATING



### FOR

Terrific interface  
Looks outstanding  
Tough missions

### AGAINST

Tricky individual unit selections  
A few minor bugs (patch available)

### OVERALL

A fast-paced and challenging RTS game that also manages to look great

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# Tomb Raider

## Angel of Darkness

The story's matured, but the game's more immature than ever

Developer: Core Design ■ Publisher: Eidos ■ Distributor: Atari ■ Price: \$99.95 ■ Rating: M15+ ■ Available: Now

### SYSTEM

#### NEED

P3-500  
128MB RAM  
16MB videocard  
300MB HDD

#### WANT

P4-1.5GHz+  
256MB RAM  
64MB videocard  
1.5GB HDD

#### MULTIPLAYER

Yes

#### ONLINE

tombraider.com  
Join the flame wars  
in the forums.

**While many problems can be blamed on being released in an incomplete state, there are issues that can only be poor design decisions or inept implementation on the developer's behalf.**

**W**hen you've spent the past three years of your life working on one game, it must be crushing to see it released when it clearly isn't finished in order to meet some short-term financial deadline. I feel a certain amount of sympathy for Core Design. They've slaved away through delay after delay, desperately trying (one presumes) to fashion *Angel of Darkness* into something capable of matching the past glories of the series, only for Eidos to rush it out the door. We've heard stories of heated internal debate over numerous design issues, including the controls and the stylistic departure from *Tomb Raider* tradition, perhaps resulting in the recent resignation of Jeremy Heath-Smith, Core's former CEO. It's been a messy business all round - an insider's account of the

development period would make for very interesting reading, I'm sure.

So what went wrong, exactly? Why has *Angel of Darkness*, the sixth installment of the once-vaunted, now-vilified *Tomb Raider* series, been handed the PCPP Fail mark? The short answer: it's a schizophrenic experience beset by a host of bugs and glitches. The longer answer requires some more details.

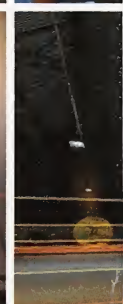
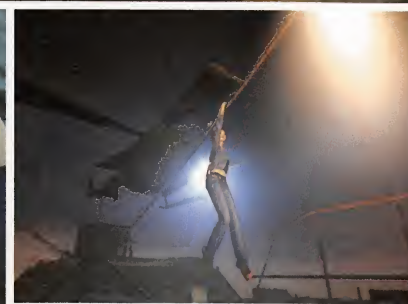
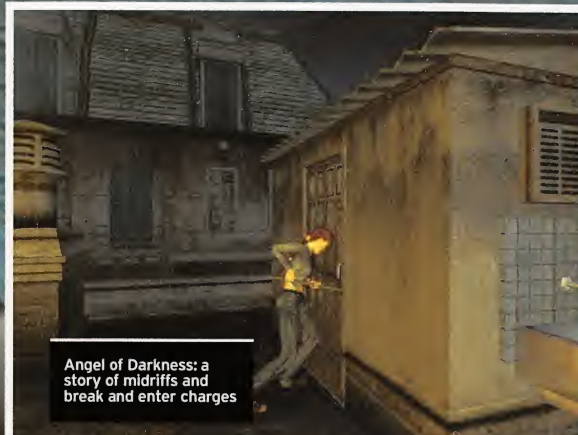
Lara seems unable to decide what kind of game she wants to be. It's clear there's been a deliberate attempt to create the kind of cinematic espionage thriller at which *Metal Gear Solid 2* and *Splinter Cell* have recently excelled. As such, Lara does an awful lot of talking, whether during non-interactive cut-scenes or through frequent conversations with NPCs where she's granted the occasional dialogue option. For the most part these work well, with some well-written (if poorly spell-checked and acted) repartee fleshing out the story and characters to a greater extent than many current games. Depending on whom you talk to, Lara's objectives and solution to the next puzzle will be slightly different, thus ushering in a marginal degree of non-linearity. Yet it's also possible to die by simply choosing the wrong option in a conversation. Cheers.

Of course, as with any contemporary

action adventure, there are some malnourished stealth elements, too. Here, Lara can creep silently and hug walls just like Sam Fisher. Yet it's all fairly redundant: enemies typically have their back turned, allowing for an easy 'stealth kill', or they don't, in which case you have to shoot them. And with the easy auto-aim and retarded enemy AI, charging in guns blazing is always the

### OH, THE IRONY

Here's a screenshot of the new *Prince of Persia* game, the *Sands of Time*. Please, Eidos (and Core), look at it very carefully. Buy it when it comes out and play it thoroughly. Write up reports about exactly what makes it so good. Then - and only then - start work on the next *Tomb Raider* game. You'll thank us.





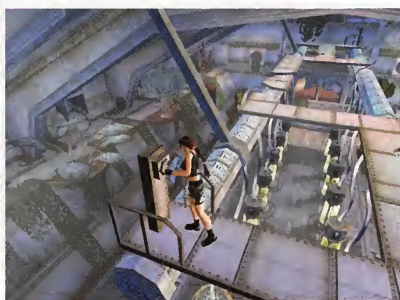


most effective solution, anyway.

Another aspect shoe-horned into *Angel of Darkness*, for no good reason beyond Core being able to say its doing something different this time, is the good old RPG element. This is not merely evident in the vaguely non-linear structure and hub-based level design, but in the way Lara's abilities improve throughout her adventure. But, even more than the aforementioned stealth, this feature appears hopelessly contrived. Not strong enough to kick down a door? Push a crate elsewhere in the level and Lara will say, "I feel stronger now". Then you can go and kick down that door. It's a pointless system that serves only to extend play time by enforcing tedious backtracking.

### Just like old times

Despite all these new elements vying for attention, this remains a classic Tomb Raider game steeped in the seven-year



tradition of the series.

As such, the controls are more-or-less identical to the original game. When *Tomb Raider* was released, Lara's stilted, almost mechanical movement proved an effective method for pioneering its novel 3D world. Its grid-like design meant you were never unsure whether she could reach a certain area or perform a particular jump. Sure, she always moved in a sluggish manner, but it didn't matter when you were tentatively exploring caverns and temples full of secrets.

Today, Lara's digital control and painfully slow speed feel like an anachronism, a sensation only heightened by the fact she's jogging and tumbling through the pedestrian alleys and sewers of Paris. As mentioned in last month's preview, these real world locations hardly lend themselves to the same sense of wonder achieved by her earlier escapades in *The Lost Valley* or the Colosseum of her first outing.

### Nooks and Crannies

Likewise, many of the puzzles now seem absurd: pulling levers and pushing blocks seemed reasonable in those ancient ruins, but are frankly ridiculous in the Louvre. And there's nothing on show here to match the ingenuity of the tasks that once awaited Lara inside *Palace Midas* or *St Francis' Folly*. Early on you'll pull a lever that opens a door back down the corridor to a room where you push a crate in order to reach a ledge where there's another lever that opens a door back in the room where you pulled the first lever. It is, to be honest, insulting.

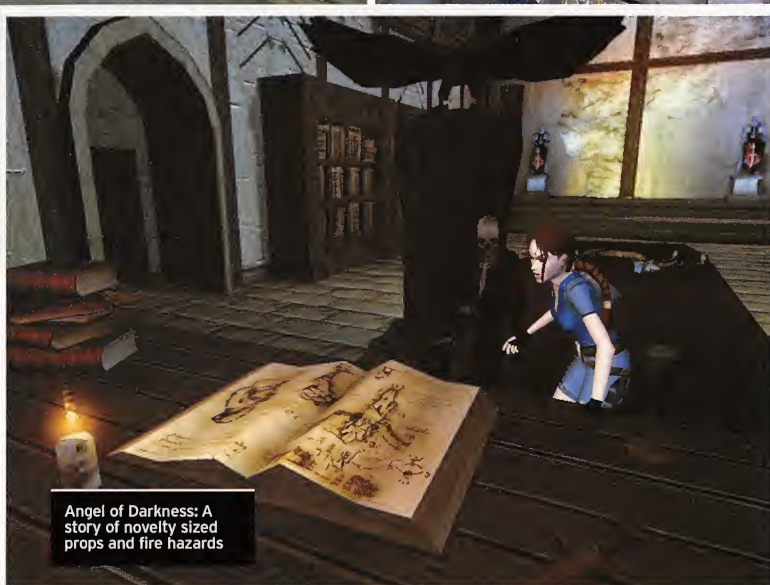
But it's also indicative of a schizophrenic game. One minute you're thinking this isn't a bad attempt at a mature, cinematic thriller; the next, you're galled by the incredibly retro design. The compelling story is the game's highlight, yet it's also the reason why Core chose such mundane locations. The old-school platforming sections offer the most entertainment, yet also illustrate precisely why the control system needs a serious overhaul. The environments are exceptionally well-conceived in terms of graphical detail, yet are also full of purely decorative doors, impassable conceits and other inconsistencies. Even the save method, in which you can save anywhere at any time, simply compensates for the fact that you'll die attempting every second jump in the game.

Although polished in many areas of its presentation, *Angel of Darkness* is as rough as the Next Media soccer team in just as many others. While many of its problems can be blamed on being rushed to release in an incomplete state, there is an equal number of issues that can only be attributed to poor design decisions or inept implementation on the developer's behalf. Fans of the previous titles will probably glean some mild enjoyment as they struggle through, but everyone else should steer well clear.

David Wildgoose

### BUGGY GIRL

If ever there was a compelling case for more stringent regulation of the PC games industry's quality assurance procedures, then this is it. Here's a game that occasionally fails to acknowledge your input, even while you're hammering away on the keyboard to make Lara climb down a ladder. A game where re-mapping the keyboard controls can actually render some parts of the interface broken - our experience left security panels unable to be used until we reset the controls to the unnecessarily awkward default settings. A game where countless environment textures are missing and several character models are completely messed up. The current patch barely even scratches the surface of these flaws.



### RATING



#### FOR

Engaging story  
Some sumptuous visuals

#### AGAINST

Stodgy controls  
Inspid puzzles  
Bugs and glitches

#### OVERALL

The death of a once great series. For shame.

49





# Shadows of Undrentide

The choice is yours

Developer: Bioware/Floodgate Entertainment ■ Publisher: Atari ■ Distributor: Atari ■ Price: TBA ■ Rating: M15+ ■ Available: Now

## SYSTEM

### NEED

Neverwinter Nights  
P3-450MHz  
128MB RAM  
32MB TNT 2

### WANT

P4  
512MB RAM  
64MB videocard

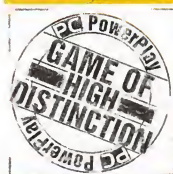
### MULTIPLAYER

Oh, and how.

### ONLINE

[nwn.bioware.com](http://nwn.bioware.com)  
If you haven't  
already, go forth  
and download!  
You've been really  
missing out.

## RATING



### OVERALL

An important expansion;  
not just more of the  
same.

85

**W**hile the included singleplayer module of Neverwinter Nights has its moments of brilliance, they are, unfortunately, few and far between. NWN is a world full of generic characters, uninspiring dialogue and very average quests, which is due in part to the incessant need to check containers and an overall blandness. It's not that NWN is a technically poor game, indeed, BioWare's translation of the Dungeons and Dragons Third Edition rules is rock solid. It's the content. NWN wasn't ever originally designed to be a singleplayer game, so thank god for the Aurora toolset then, the other and first half of NWN - pure potential.

With its bundled world and adventure maker, the Aurora toolset represents the heart and soul of NWN, which is the ability to craft unique adventures for singleplayers or multiples. And the online community has responded in kind making thousands of modules available. There are more than enough top quality modules to make amends for the out-of-box NWN experience. Where the official NWN module was hurt by the need to be commercially viable, the online community has the freedom to experiment with content. And some of the results have been spectacular, surpassing even BioWare.

Shadows of Undrentide - NWN's first

official expansion pack has, similarly, two parts to it. There is a 20-hour singleplayer module and some new content and features for Aurora. The news spells, skill, feats, prestige classes and tile sets add to NWN's already diverse creative palette.

The singleplayer module was developed by FloodGate Entertainment and consist of some ex-Looking Glassers. As far as game experience goes, it very much represents a safe commercial bet. Albeit, a very nicely polished one as it's the little touches throughout the campaign that will please all but those with a serious deficit in attentiveness. Also, dialogue is more playful and the world is better realised. For example, the handy recall gem from the original is initially present in SOU as a ring, but has limited charges. Soon after, it is made redundant, and the flavour of adventuring suitably alters. Containers such as chests, barrels and piles of rubbish don't yield so much, and when they do, the offerings are suitable within context. Old-school riddlin' abounds, and so the overall impression of SOU is that of a module that feels more like an old pen and paper based adventure than anything else currently out there. And to FloodGate's immense credit, the adventure has been laced with a cracking sense of humour. Go mighty jumping kobolds, go!

Shadows of Undrentide is an excellent expansion. The singleplayer module is a gas; more focussed and fun than the original one. However, where SOU shines is in the diversity offered by the Aurora toolset. It's all about potential. And that, at the end of the day, is up to us. So, get creating!

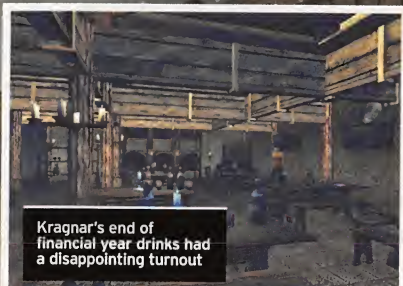
March Stepnik

## SNOBBY

Shadows of Undrentide introduces prestige classes. You get the Arcane Archer, Assassin, Blackguard, Harper Scout and the Shadow Dancer. For the price of directed skill and feat (and sometimes class) choices, players get access to some very juicy abilities. Take the Arcane Archer's Arrow of Death where after reaching level ten, once a day, a directed arrow hits its target resulting in instant death. Sweet.







Kragnar's end of financial year drinks had a disappointing turnout



# Morrowind: Bloodmoon

Getting hair where there was none before? Sounds like puberty.

Developer: Bethesda Softworks ■ Publisher: Bethesda Softworks ■ Distributor: Ubi Soft ■ Price: \$49.95 ■ Rating: M15+ ■ Available: Now

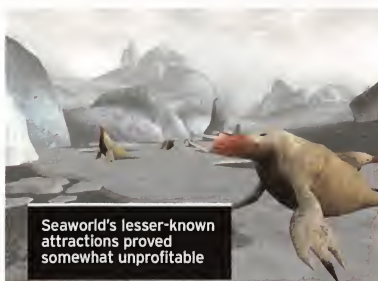
**F**or the longest time, werewolves have been getting the short end of the stick with international audiences, preferring the dark majesty of the lord of the undead, the vampire. Maybe it's because vampires have so much more pretence at being human that they are our number one monster, or perhaps the dark sexual animalism of werewolves is a little too uncomfortable for most of us. In recent years, werewolves have been making their way back into popular culture with numerous appearances in film (including the excellent *Ginger Snaps* and *Dog Soldiers*) and now this new expansion for Bethesda's epic non-linear RPG. Set on the snow-enshrouded Nordic island of Solstheim, *Bloodmoon* opts for the more freeform style of the original game rather than the heavily scripted linearity of the first expansion, *Tribunal*.

After speaking to any of the inhabitants of Vvardenfell, all of whom seem to know the gossip about an island on the other side of the world, players learn of the location of Solstheim, reachable either by boat or by a lengthy and somewhat risky swim. On the island, players become embroiled in the local politics, dealing with the three main factions, the native Nords, the Imperial garrison in the area and East Empire Company, doing various missions for each group, exploring the many caves, mines and dungeons, all the while coming closer and closer to a deadly group of individuals who need a good shave to say the least. It's possible to become a werewolf in *Bloodmoon* but the cost of becoming a member of the hair club for men may prove too high for some. In return for some massive stat bonuses the character will transform into wolf form every sundown. In wolf form, the player has no access to skills, spells or inventory, instead having to rely on innate strength and speed. To make matters worse, if anyone sees the character transform, every NPC in Vvardenfell will attack the player on sight. To prevent a massive amount of health loss, the player must kill and consume an NPC every night. Everyone should try becoming a werewolf at least once, but make sure you have a handy save to restore when you get fed up.

*Bloodmoon* takes the spectacular

graphics of the original game and ups them a notch by adding a light dusting of snow. It may not sound like much but after taking one look at Solstheim and you'll be taken in by the powdery vistas. Draw distances have also been tweaked with trees and terrain being given a degree of transparency so the slowly fade in and out rather than just appearing. Unfortunately, this facelift comes at the price of framerate - even on high-end machines, combat in the snow can cause the game to chug. A few new monsters have been added to the mix, so it's not just the environment offering eye candy. Mundane creatures such as wolves and bears attack en-masse making run of the mill battles far more difficult and the new Spriggan (traditionally a giant that could shape-change into a dwarf), a formidable wood spirit that needs to be cut down three times before they are truly slain. The real stars of the show are the werewolves. Although they look fantastic the sheer proliferation of silver weapons on the island make battles against the werewolves a little too easy.

Daniel Wilks



Seaworld's lesser-known attractions proved somewhat unprofitable



## SYSTEM

### NEED

P3-500MHz  
256MB RAM  
32MB 3D DirectX 8.1  
Morrowind

### WANT

P4-2GHz  
512MB RAM  
64MB 3D DirectX 8.1  
1GB HDD

### MULTIPLAYER

Yes

### ONLINE

members.bipod.com  
/wlam25

An interesting history of were-creatures ranging from myths to 'actual' accounts of encounters. Spooky.

## RATING



### OVERALL

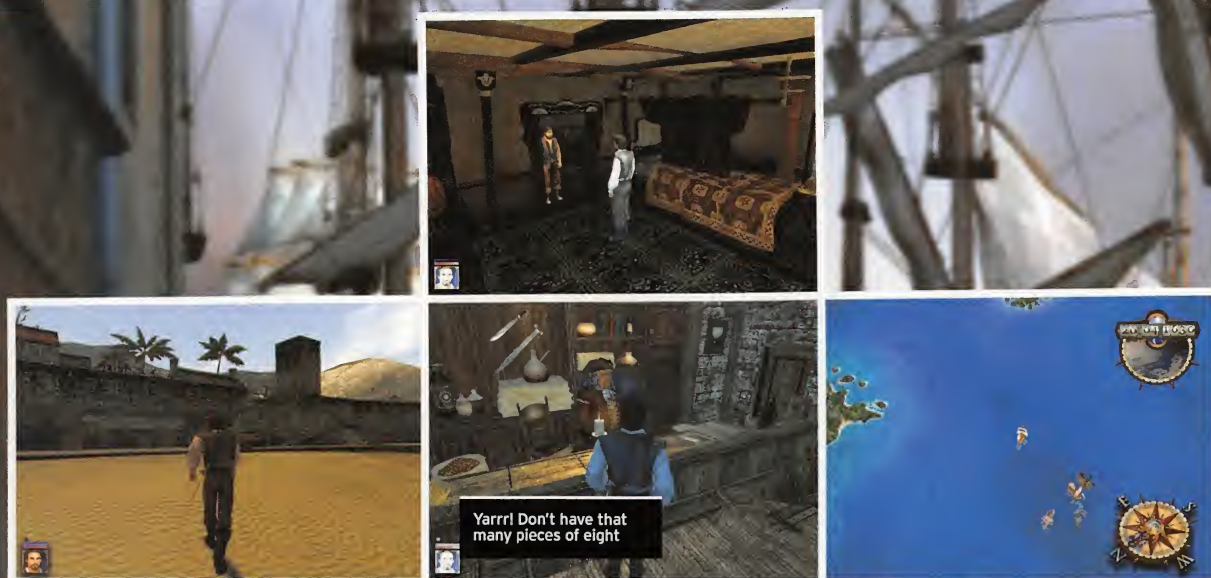
A great expansion but only accessible at high levels.

80

## VETERANS

Although it is possible to start questing in Solstheim with a brand new character it isn't really advisable unless you fancy being killed by basically everything you encounter. Half the fun of *Bloodmoon* is found in exploring the island and unless you plan on running away from every confrontation and hoping you don't encounter any respawning beasts, a character of at least 15th level is recommended. Likewise, the story quests can be completed by lower level characters, but for full enjoyment you really need to be playing someone who can ably take care of themselves.





# Pirates of the Caribbean

There's a new sea ditty entitled, "Yo Ho Ho, You Sold Out"

Developer: Akella ■ Publisher: Bethesda Softworks ■ Distributor: Ubi Soft ■ Price: \$99.95 ■ Rating: M15+ ■ Available: Now

## SYSTEM

### NEED

P3-800MHz  
128MB RAM  
32MB 3D videocard  
1.5GB HDD

### WANT

P4-2GHz  
256MB RAM  
64MB 3D DirectX 8.1  
1.5GB HDD

### MULTIPLAYER

Yes

### ONLINE

[www.piratesinfo.com](http://www.piratesinfo.com)

The most famous female pirate in history, Anne Bonny, and skull and crossbones flags for sale. Sick.

## RATING



### OVERALL

Not a bad game but too inaccessible for the casual gamer

65

It's nothing new for an enterprising games company to either buy or co-opt a film licence to make for some good cross promotional marketing. Largely these games are specifically made to tie in with the release of the film, much like the recent Enter the Matrix and Hulk games. Whilst many of these games turn out to be seriously disappointing there is a kind of mercenary purity in their design - the games are made to cash in on the success of the film and that's usually what they do. Unfortunately, Pirates of the Caribbean is not one of these games. Once known as Sea Dogs 2, Pirates of the Caribbean has been rushed for release and renamed to coincide with the release of the film of the same name. Aside from having the dubious honour of being the only game I can think of that's based on a film based on a Disneyland ride, all Pirates of the Caribbean really achieves is making the player want to cry, "You Sold Out".

The major selling point of film licence games is that they should appeal to a mass-market audience - the people that go and see the film and think to themselves, "I'd like to play a game based on that". Hopefully, not too many cinema goers will get the urge to buy the game - not because it's bad, more because of the fact that an in-depth, freeform RPG/trading simulator will really appeal to anyone after a bit of wacky pirate hijinx. Aside from the title and a few seemingly tacked on caves populated by skeletons, the game has nothing at all to do with the film - no Johnny Depp acting weird (for a change), no Orlando Bloom making the young girlies swoon and definitely no Geoffrey Rush gleefully chewing up the scenery. Instead, players are cast as captain Nathaniel Hawk, the rookie captain of the Victory, a small trading/smuggling vessel. After a brief tutorial introduction to the game mechanics, it's off into town to get the ship repaired and hire some men before



## THERE'S A STORM A-BREWIN'

While at sea there are more than just other pirate ships to contend with - there's the unpredictable weather. Deadly storms sweep across the open water and any captain foolish or unskilled enough to get caught under their dark cloud have to put all of their seafaring skills to the test to get out alive. Using the Storm engine, Pirates offers up some incredibly realistic looking water, rain and wave effects and battling against these elements is one of the more enjoyable action aspects of the game. Captains must angle into waves and raise/lower the sails to avoid being swamped or stricken.

heading out to sea and getting embroiled in the slowly unfolding plot.

The game is divided into distinct sections, land, sea and sea combat, each with their own specific controls and commands. For the most part the land-based segments revolve around talking to people, buying and selling goods, hiring extra crew and occasionally getting into fights. Although slow, the conversation sections can be quite engrossing, however, the same thing cannot be said about the combat system. Players have access to two attacks (sword and gun), a block and a dodge, which means that



ultimately any combat comes down to blocking until you have an opening, taking a few swings with the sword, dodging back, firing the gun and blocking until it reloads - repeat until dead. Sea combat fares little better with the massive warships being slow to manoeuvre and cannons difficult to aim. Until you can afford a big, well-armed ship and elite crew you're far better off avoiding all conflict unless you want to get your ass handed to you by every Tom, Dick and Harry with access to a raft.

Sea Dogs 2, sorry, Pirates of the Caribbean looks gorgeous, using a more polished version of Bethesda's Morrowind engine. Although you'll usually just find yourself looking at Hawk's back it's hard not to be impressed with the detail of the stitching on his jacket or the way grass moves as he walks through it.

Daniel Wilks





Developer: Ratbag ■ Publisher: Infogrames ■ Distributor: Infogrames ■ Price: \$29.95 ■ Rating: G ■ Available: Now



**W**hat could be more fun than driving a car that possesses more grunt than a prize bull on steroids through muddy figure-eight tracks at speeds comparable to their bitumen-based counterparts? If you're a redneck racing fan from Tamworth, probably not very much.

Even if you don't spend your spare time bashing a two-hundred dollar Corolla around the nearest quarry, Dirt Track Racing 2 boasts many other qualities that will no doubt impress most cyber sim-racing fans. Ratbag has produced a unique racing title, and although it's obviously marketed towards simulation enthusiasts, DTR2's racing physics can be scaled and is likely to appeal to anyone with a general interest in driving games.

The game features three different car classes and 14 real life tracks, and unless you're a fan of the genre, the abundance of left-handed oval tracks can get very repetitive - very fast. Although almost every corner in the game is a left-hander, there are two dangerously challenging figure-eight circuits. Incidentally, this is a good time to give an honourable mention to the damage modelling in DTR2. Not only is it visually realistic, but its physics engine is also well accounted for. However, it's just a pity the wrecks disappear quickly after collisions and preventing those truly spectacular pile-ups.

DTR2 allows the mandatory 'quick race'

option, although it's the 'career mode' - a feature fast becoming a standard of racing games - that really shines. DTR2 could, in some ways, be best described as a cross between Papyrus' NASCAR Racing 2003 and the console hit, Gran Turismo. The realistic physics and oval tracks is reminiscent of NASCAR Racing, but there is also option to win cash and modify your ride, a feature that has so far been the domain of arcade racers.

Although the modification options are relatively limited compared to the slew of upgrades available in some other titles, the garage setup facilities certainly are not. DTR2 offers the ability to tweak and adjust just about every setting on your car, from weight distribution to suspension settings, and even braking power.

The rumbling clamour of gurgling V8 engines is recreated very convincingly and there is also an atmospheric stadium commentator. However, he seems solely interested in commenting on the player's racing, even if you're coming dead last and driving like Miss Daisy. This oddity can be forgiven, although I do have one gripe with the audio: the monotonous sounding crowd noise is an all too obvious endless loop of a two-second sound sample.

The graphics can't be described as revolutionary, although it's more than satisfactory and obvious that it's built on a capable engine. With mid-range system

specs (1.3 GHz and a decent graphics card) there is a barely noticeable drop in the framerate, even when all the graphics options are set to maximum.

Overall, Ratbag's Dirt Track Racing 2 is an extremely polished off-road racing simulator. It easily warrants a 'must-have' label for anyone that can't get enough of Papyrus' NASCAR simulators, but also presents a very attractive option for gamers eager to experience a top-notch racing game.

Victor Webster

## GET SPONSORED!

One very impressive facet of DTR2's career mode is the ability to gain sponsorship, just like real-life racing. You begin your career unaided, but as you progress through the ranks of mud-flingers, you can catch the attention of various potential supporters and will begin to receive sponsorship offers. This supplies you with money to modify your machine. Of course, in return the sponsor gets to plaster your vehicle with its advertising slogans. Race well and you'll have all the local fat-cats knocking on your door shoving fist-fulls of dollars down your tail-pipe just for the privilege of being associated with such a successful driver.

## SYSTEM

### NEED

P2-400  
64MB RAM  
8MB videocard  
200MB HDD

### WANT

1300MHz CPU  
128MB RAM  
520MB HDD  
32MB GeForce

### MULTIPLAYER

Yes, at GameSpy

### ONLINE

[www.ratbag.com.au](http://www.ratbag.com.au)  
Check out DTR2's Aussie development team website. Download demos, patches and view the online DTR2 racing leagues!

## RATING



### OVERALL

A good dirt based cross between Gran Turismo and NASCAR Racing.

**85**





# Blitzkrieg

RTS with actual strategy - Such a thing is possible?

Developer: Nival Interactive ■ Publisher: CDV ■ Distributor: Red Ant ■ Price: \$89.95 ■ Rating: M15+ ■ Available: Now

## SYSTEM

### NEED

P2-366MHz  
64MB RAM  
8MB DirectX 8.1  
2.4GB HDD

### WANT

P4-2GHz+  
256MB RAM  
64MB DirectX 8.1  
2.4GB HDD

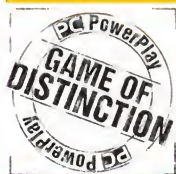
### MULTIPLAYER

Ja, Wundervoll!

### ONLINE

[www.royal.gov.uk/ou/ou/page1043.asp](http://www.royal.gov.uk/ou/ou/page1043.asp)  
That gin-soaker, the Queen Mum, was notoriously patriotic during WW2. Those pesky Germans!

## RATING



### OVERALL

If you're interested in WW2 or love strategy, Blitzkrieg is for you.

81

Anyone who has read some of my previous reviews will know that I'm not too fond of the majority of RTS games, feeling, for the most part, that too much emphasis is placed on the management and collection of vital resources rather than the actual strategic elements of gameplay, allowing players with better resource management skills to rush and effectively end the game before it begins. The last 66 words are a roundabout (but fairly apt) way of saying that Blitzkrieg is something of a breath of fresh air. It's all about the strategy of massed WW2 combat, the thrill of effectively using your given units and trying to hold out long enough for reinforcements to arrive. Out of the dozens of historically accurate units, not one is devoted to gathering resources.

Okay, saying there is absolutely no resource management in Blitzkrieg is a little misleading - there are resources to manage but none to collect. Some units such as artillery and tanks need to be regularly resupplied with ammunition. Enter the

humble supply truck, the unit you will probably see more than any other. Rather than just keying the supply truck to a unit and letting the AI take care of everything, Blitzkrieg necessitates human control of trucks. This may sound a little frustrating, but in reality it is anything but, due to its never-ending usefulness. Instead of simply being a travelling resource point, the supply truck is basically a universal transport. If you're looking to place reinforcements, you can hook artillery to the back of the truck, load in some artillery crew and a few guard infantry, drop them off where you want them to set up and keep heading on to resupply nearby troops. For those mathematically inclined, a brief equation would be truck=good.

In singleplayer mode, Blitzkrieg offers three massive campaigns featuring the Allies, Germans and Soviets, so you can be guaranteed some significant replay value. Multiplayer is supported as well with two game modes on offer - capture the flag in which either side has to seize and hold four flag points to win, and assault where you must hold flag points and also eliminate the opponent.

One of the most tactically interesting things about Blitzkrieg is the use of scouts. Aside from their obvious application as long-range reconnaissance units, scouts can also be used as snipers and sent on solo forays into enemy territory. Whilst this may not sound revolutionary, it does open up a wealth of new tactics, as you can go behind enemy lines, execute a few artillery infantry and ambush enemy troops with their own artillery or tanks. Other troops aren't left lacking in terms of tactics either with the player being able to do such things as dig in artillery for defensive fire, have infantry construct trenches and the like. Although it can run on an antique system, Blitzkrieg is still a gorgeous game to look at with some

wonderfully detailed pre-rendered maps and excellent unit detail including clouds of exhaust and damage mapping. Sound is equally good with an excellent soundtrack and some cracking (pun intended) weapon effects. Blitzkrieg may have a steep learning curve but it's definitely worth the time invested.

Daniel Wilks







# Midnight Club 2

Got enough nitrous to meet the challenge?

Developer: Rockstar San Diego ■ Publisher: Rockstar ■ Distributor: Take 2 ■ Price: \$89.95 ■ Rating: G8+ ■ Available: Now

If you're looking for the next Grand Prix Legends, turn the page now. On the other hand, if you're after some pure arcade racing bliss at speeds that'll turn your brain into a guggy mush of fried synapses, you've come to the right place.

Much like the Midtown Madness series, the racing action in MC2 isn't limited to boring, regulation race tracks. Instead, the massive cityscapes of Los Angeles, Paris and Tokyo are your high speed playgrounds, complete with hundreds of pedestrians and jam packed with traffic, which must be negotiated at 300km/h. Easier said than done.

You start the game in a relatively low end street machine, and must track down racers in each city. Once you've used the radar to pull up behind a racer, a quick flash of your headlights signals your interest in getting down and dirty. Successfully follow the racer to a meeting point and you're joined by six or seven other racers. From there it's into the more traditional racing modes, such as Checkpoint and Beat the Clock. Thrash the pants off the guys you're up against and you win the vehicle of the head racer you had challenged, as well as copious amounts of lovin' from the ladies in hot pants that start the races. None of the vehicles are licenced but surprise, surprise, they all bear a striking resemblance to real world cars.

Grease monkeys will be disappointed to hear there is no vehicle tweaking whatsoever; the focus on this game is purely on racing. But what a delight the racing is.

Handling can only be described as arcadey, being very twitchy and accurate, and the sensation of weight that each car has is superb, making collisions a crunchacular affair. This accurate handling is necessary considering the phenomenal sensation of speed and the many obstacles you've got to circumnavigate. In fact, MC2 feels like one of the fastest racers I've ever played. You also have access to some special moves, such as nitrous, slip-stream boosts and the ability to raise on two wheels. Yes, very arcadey, indeed. Motorbike racing is also present, and these two-wheeled speed demons are definitely a challenge to control. As well as the standard control options, bikers can lean into corners and pull wheelies to get a free speed increase, which for this poor reviewer all seemed a little too complex, although not so difficult when you consider I'm not going to do my darndest to master it. To get the most out of MC2 a control pad is highly recommended, as a keyboard or steering wheel just can't do it justice.

The scenery in MC2 is nothing less than stunning, with little pop up of the massive, highly detailed tracks, and it all flows by nice and smoothly, even on mid-level systems.

Unfortunately, the cars don't quite match this level of detail, but the fact that they're moving so bloody quick makes it easy to overlook this fault. Special effects are stunning, with massive plumes of sparks and gorgeous lighting in abundance. A totally cranking techno/rap sound track will have MC2 fans trying to figure out how to rip the songs out of the game to be played when you're not racing.

Backing up the lengthy singleplayer campaign is the riotous multiplayer mode that has support for eight players over the Net. As well as the standard circuit races, a couple of variations on cat and mouse style gameplay are included, and these will prove to be the most popular with online racers. Unfortunately, the netcode needs a little improvement - during a two player racing session a small amount of lag was apparent, but not enough to detract from the enjoyment factor by much.

MC2 was originally designed for the consoles, and this is where its main problem lies, as the interface is appalling for PC users. Multiplayer, especially, is a pain - every time you want to swap cars or change tracks the server must close down, restart, and then all of the players rejoin. Told you it was painful. Its linear singleplayer campaign can also prove to be very frustrating, as you'll often have to attempt some of the harder races twenty or more times before taking home the gold.

If you're at all interested in arcade racers and can overlook these minor flaws, you really must check out MC2. The sensation of speed is unbeatable, and the heavily populated cities makes high speed races through dense traffic a memorable affair. If only they'd fixed the couple of nagging complaints, MC2 could have been one of the finest arcade racers to ever hit the PC. Bring on the patch...

Bennett Ring



## SYSTEM

### NEED

800MHz CPU  
128MB RAM  
32MB DX9  
1.6GB HDD

### WANT

1.8GHz CPU  
256MB RAM  
GeForce 3  
EAX 3

### MULTIPLAYER

8 on LAN or Internet

### ONLINE

[www.ricboygame.com](http://www.ricboygame.com)

There's even a term for fans of hotted up street cars. When looks are more important to you than performance, you are a Rice Boy.

## RATING



### OVERALL

Arcade racers will love this game, in spite of a few unpolished areas.

# 88







# TIME FOR TRANSITION

**Bennett Ring** inspects 13 TRT monitors to discover how the new breed of monitors are for gaming

**M**mmm, LCD TFT monitors. They're sexy, they're skinny, they're lightweight, and they also tend to make your eyes bleed a lot less than your standard CRT (Cathode Ray Tube) brick. One other thing - they ain't too good for gaming. In fact, they're pretty shoddy for any type of display duty that has rapid movement of onscreen images, such as watching movies or playing Speed Solitaire.

This is because TFTs are plagued by low pixel response times, which is the time it takes for each pixel to turn on and off. Unlike CRT monitors, whose pixel response time is exponentially faster. As a result, when you're trying play with a TFT (Thin Film Transistor) monitor, detail is lost in a blur of sluggish pixels. It's commonly called motion blur, and is the reason why I've been vehemently opposed to the use of TFTs for gaming. Well, until now, that is.

You see, there is a new breed of TFT on the market that has a 16ms (millisecond) pixel response time, which is significantly faster than the 25-30ms sloths of the past. As a result, these new TFTs are now almost as good as a standard CRT for gaming and DVD viewing. Notice the use of the world almost - you might find that these monitors are still a little too

blurry for extremely fast paced games, such as firstperson shooters or racers. TFTs also have one other major problem for gamers. They're stuck at a native resolution, so if you want to run at any resolution other than that, the monitor has to rescale the image, resulting in a significant loss of image quality such as unreadable text or the dreaded 'jaggies'. All the monitors we looked at had a native resolution of 1280x1024, so you're going to need a beast of a videocard to play all of your games at this resolution, such as the RADEON 9700 PRO. Sure, you can still lower your game resolution to 1024x768 if your videocard is having a hard time, but it's going to look a little worse on a TFT than a CRT monitor running at the same resolution. But TFTs aren't all bad - in general, they have much better image quality than a comparable CRT monitor, with richer colours, higher pixel accuracy and a brighter screen.

TFT prices are dropping rapidly, with 17" models becoming quite affordable, so we figured now would be a great time to check out as many different 17" TFTs as we could get our RSI-riddled hands on. By the way, a 17" TFT has the same viewable screen size as a 19" CRT monitor. Weird, huh?

## HOW WE TESTED

The basis for our tests was a synthetic benchmark called DisplayMate Multimedia with Motion edition (available from [www.displaymate.com](http://www.displaymate.com)). This is a far more accurate method of testing display devices than simply kicking back with a few games and DVDs, and uses around 30 different image quality tests to determine the relative strengths and weaknesses of each monitor. During the trial we discovered that it's also perfect for calibrating the contrast, brightness and colour settings of each monitor before testing, which was necessary to get accurate results. From our results, it appears that LCD TFT screen manufacturers are rapidly solving some of the major stumbling blocks of the past, such as streaking, screen uniformity and grey scale issues, as all of the monitors were very closely matched when it came to image quality, with the exception

of the ever important motion blur tests.

Due to the hardware acceleration used by the motion test, we had to use a Matrox G550 videocard running on Windows 98. Urgh. Thanks to FocalPoint ([www.focalpoint.com.au](http://www.focalpoint.com.au)) for loaning us a Matrox videocard to use in the tests. Finally, we looked at the warranty for each monitor. TFTs suffer from a problem known as stuck pixels, where pixels die over time and stay fixed as one colour, which can be very annoying if it's a bright pixel, and it's in the centre of the screen. Various manufacturers have different policies on how many pixels can die before you can return the monitor, so it's important to note which warranties are better than the rest. So, let's quit waffling on about our testing and find out which one of these sexy displays is going to send that CRT of yours packing.

## Acer AL732

• Price: \$899 • Distributor: Best Byte • URL: [www.bestbyte.com.au](http://www.bestbyte.com.au)



**F**irst impressions of the Acer AL732 were more than favourable - just take a look at that sexy bezel and steel stand. It's a follower of the less is more approach, with very minimal and clean lines, which is just the way we like it. It also had one of the better OSDs (On Screen Displays) of all of the monitors in the PowerTest. On the back of the panel are a wide range of inputs - S-Video, Composite, DVI and VGA, as well as two inputs for stereo sound. The only flaw we could find in the construction is that this monitor requires an external power transformer, rather than the internal transformers found on many of its competitors. However, this is a moot point when you consider the overall excellence of this display.

Image quality was impressive, scoring well in every DisplayMate test bar one. To our dismay, our brand new review unit had two

dead pixels straight out of the box, making it only one of three monitors with so many dead pixels. This is why we think it's a good idea to test your TFT at the store before laying out the cash for the purchase.

Thanks to its 16ms pixel response time this monitor excels at displaying fast moving visuals, as proven by our motion test, making this monitor good enough for all but the most demanding firstperson shooter fan. The warranty for this monitor is pretty standard - 3 years onsite with a return after five dead pixels, which seems to be the average warranty based on the monitors in the PowerTest. Rounding off this sweet package is a very reasonable price of only \$899. For this price, we have to give this high quality TFT the big PowerPlay thumbs up. Just make sure you find one that hasn't got any dead pixels...



PCPP Score

**Image Quality: 4.5/5 Overall: 4.5/5**



## Aopen F70ES

• Price: \$740 • Distributor: BlueChip IT • URL: [www.bluechipit.com.au](http://www.bluechipit.com.au)

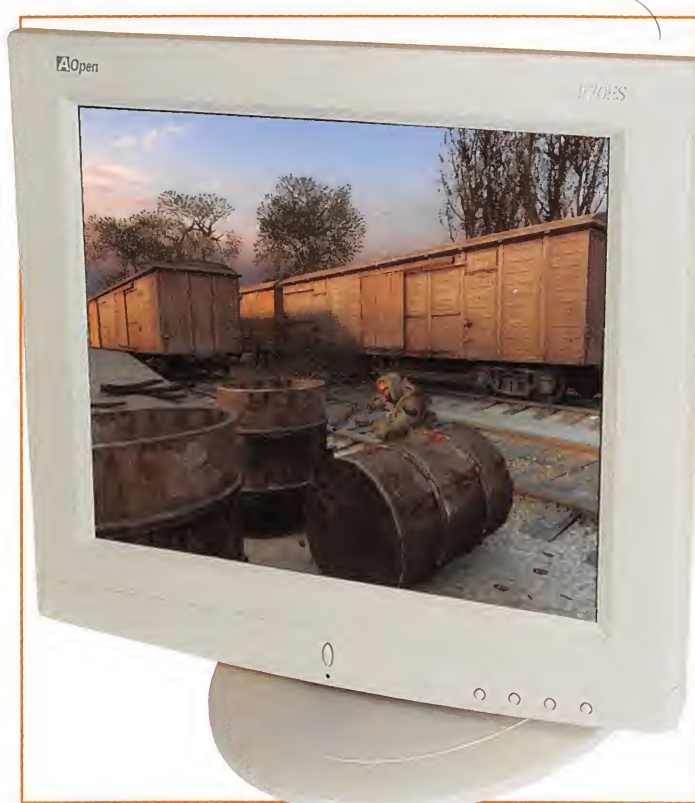
At only \$740, this is one of the cheapest TFTs in the roundup. In fact, it's only marginally more expensive than a good quality 19" CRT monitor. We told you TFTs were getting cheaper...

It's not the prettiest monitor we've seen, with a relatively chunky bezel surrounding the screen. It's also one of the few beige models on offer - c'mon Aopen, get with the brushed aluminium look already! The range of inputs is lacking - standard VGA is all you'll find on the back of the monitor, though this probably won't be a problem for most PC users. An internal transformer means you can whack in any old PC power cable to get this baby up and running. The fact that every pixel was working perfectly is also nice to know, unlike some of the more expensive brands.

Image quality was very respectable, coming out in the middle of the pack, although it did seem to struggle a little with white

level saturation, but other than that it was great on the old eye balls - provided you're only looking at static images. When it came to gaming, this monitor is best left untouched. This is no surprise considering it has one of the slowest pixel response times of all of the monitors at 27ms, and thanks to this it scored very poorly in our motion tests. A 3 year onsite warranty with a return policy of five dead pixels is included in the asking price.

While we can't complain about the price, the EF70ES is definitely one of the older generation of TFTs that is currently available. If you're not going to be doing much gaming, which we doubt considering you are after all reading PC PowerPlay, this monitor is fine. On the other hand, if your primary motive for purchasing a TFT is to allow you to better see that bandit on the horizon or sniper on the hill, avoid this monitor and shell out a couple of hundred more for a vastly superior model.



### PCPP Score

Image Quality: 4/5 Overall: 3/5

## Auriga L17AX

• Price: \$749 (\$264 for IC7) • Distributor: AKA Tech • URL: [www.akatech.com.au](http://www.akatech.com.au)

The Auriga L17AX is another monitor that will leave you change from a \$750 note - if such a note actually exists. Which it doesn't, but that's not our problem. What we're trying to say is that this monitor is bloody cheap - but does it perform significantly worse than some of the \$1000+ monitors?

In a nutshell, no. Well, let's clarify that a little. Yes, it did get the worst DisplayMate result of the lot, however, it was so close to the others that you probably won't even notice this - unless you stood this monitor side by side with the best in the roundup, we're confident you'd be more than happy with the image quality of this monitor.

For a \$750 monitor, we were quite astounded to see that it was one of the few that had the four big input options. That's right, S-Video, Composite, DVI and VGA are all here to satisfy your need to

get busy with the input options. You can even chuck in a TV tuner. Take note monitor manufacturers, if Auriga can do it at this price, you've got no excuse not to include all four major input options.

The biggest issue this monitor had in DisplayMate was the couple of pixel tracking tests that check the accuracy of the mapping of image pixels onto display pixels across the screen. Usually by playing around with the phase control, pixel jittering during this test can be resolved, but this monitor struggled.

Motion blur was minimal, which is very surprising considering it's got a pixel response time of 25ms, although it still wasn't as fast as the 16ms beasts. This highlights the variance between different manufacturers when calculating pixel response times. Finally, a standard 3 year, five dead pixel warranty rounds out this well priced package.



### PCPP Score

Image Quality: 3.5/5 Overall: 3.5/5



# BenQ FP791

• Price: \$1,299 • Distributor: BenQ • URL: [www.benq.com.au](http://www.benq.com.au)



Whether or not you like the look of this monitor is a question of personal taste, or lack thereof. In our humble opinion, BenQ could have been much wiser to go for the Jenny Craig slim line approach, as seen on most of the monitors in the PowerTest. It's also lacking some of the more niche AV inputs, only supporting VGA and DVI. A nice touch is the ability to plug a TV tuner into a small cavity at the back of the screen, turning this monitor into a fully fledged LCD TV. Of course you have to pay extra for this added niftiness. The buttons on the front are of the magical touch type that don't click when pressed, but the OSD is a little confusing. Thanks to SRS Surround Sound technology, the inbuilt speakers are actually okay for gaming, but still can't come anywhere near a dedicated 5.1 speaker setup.

However, these small failings are more than made up for by this unit's exceptional image quality.

While all of the monitors were very closely matched for static image quality, the FP791 stood out as being the brightest of the lot, and excelled at every single test that DisplayMate threw at it. As you'd expect from a 16ms pixel response time screen, the FP791 is also quite capable of handling games and video, as proven by our motion test. And there wasn't a single dead pixel in sight. BenQ's warranty policy was in the process of being altered at the time this article was written, so we recommend contacting BenQ to get further details if you're going to purchase the FP791.

While the FP791 has outstanding image quality, it's also one of the most highly priced monitors in the roundup. If you've got money to burn, we have no hesitation in recommending this chunky beast. However, for the more frugal amongst you, you're probably better off getting the Acer, which has almost as high image quality at a significantly lower price.



## PCPP Score

Image Quality: 4.5/5 Overall: 4/5

# Hercules ProphetView 920DVI

• Price: \$999 (\$849 without DVI) • Distributor: Guillemot • URL: [www.guillemot.com.au](http://www.guillemot.com.au)

Hercules is a company known for products that have a healthy dose of eye candy. Take the ProphetView 920DVI for example - it's arguably the swankiest looking monitor in the entire roundup. From its boomerang shaped base to the metallic blue bezel, you're guaranteed to attract the attention of the opposite sex with this little beauty. Okay, maybe we're exaggerating, but there's no denying how gorgeous this one is.

A monitor worthy of your attention needs to have much more than just a pretty bezel though, and thankfully the ProphetView also delivers the image quality goods. It scored the fourth highest in the DisplayMate torture tests, and there wasn't a single dead pixel in sight. It was also one of the brightest monitors in the test, so you won't need to squint to see the image in a bright environment, and this monitor wasn't blemished at all by any dead pixels. Considering the higher pixel response time of 23-25 milliseconds, we were surprised to see

that this monitor was actually able to handle games quite well, being markedly superior to the other 25ms pixel response time monitors. However, it still didn't look quite as clear as the 16ms models, though it wasn't far behind.

The 920DVI is a little more expensive than many of the other monitors, but this is offset slightly by its better warranty. While most of the other companies will only replace your monitor once five pixels have died, Hercules is happy to provide you with another monitor after four dead pixels. Thanks Hercules!

## BRIGHT LIGHT, BRIGHT LIGHT!

If you do make the switch to a TFT, you'll immediately notice that TFTs are significantly brighter than CRTs. They also tend to have much more vivid colours than CRTs. In fact, it's safe to say that TFTs have an overall superior image quality to CRTs, except when things start moving.



## PCPP Score

Image Quality: 4.5/5 Overall: 4/5



## LG L1710B

• Price: \$1,030 (\$928 without USB) • Distributor: LG • URL: [www.lg.com.au](http://www.lg.com.au)

We're not quite sure why you'd want to include a USB and FireWire hub into a TFT monitor, but LG obviously thought it was a pretty good idea. Take our advice and buy the cheaper, non-USB version, and save a hundred bucks in the process.

The L1710B has an ultra-thin bezel, but this is let down by one hell of an ugly plastic base. On the back of the monitor the connectivity options are lacking, with simple DVI and VGA inputs.

This monitor was one of the lowest scoring in the image quality tests, but due to the closeness of the IQ of all of the monitors reviewed, it's still not that far behind the leaders. However, the discovery of two dead pixels was disappointing. A 16ms pixel response time makes this monitor a desirable display device for all of your gaming needs, as we saw during the motion tests.

Upon contacting LG to find out about their warranty policy, we were confronted with a 16 page

document that at times confused us, and at others delighted us. You see, depending on who you buy it from and which pixels have died, the warranty policy differs. The ultimate zero pixel warranty is available from certain retailers, so if even one pixel dies you can swap your monitor for a brand new one. Unfortunately, this type of warranty adds to the cost of the unit, and isn't available at all retailers.

In all, the L1710B is a decent monitor that is let down by a confusing warranty policy, lack of IO options and a relatively high price.

### TRY BEFORE YOU BUY

As mentioned in the Acer review, you must test the exact unit you're buying at the shop to check for dead pixels. It's not uncommon for a brand new monitor to ship with a dead pixel or two, so it's best to find out before you pay. That way, you can be sure you're not going to find a dead pixel when you get home.



### PCPP Score

Image Quality: 4/5 Overall: 3.5/5

## Mitsubishi Diamond View DV172B

• Price: \$1,049 • Distributor: Mitsubishi Electric Australia • URL: <http://www.mitsubishi-electric.com.au>

Oh dear, here we go again. Mitsubishi is another one of the TFT manufacturers that has a slightly complicated warranty policy. From what we can gather after speaking to Mitsubishi, the monitor will be replaced if it has anywhere between three and six dead pixels, depending on whether or not the pixels are bright or dark, as well as how far apart they are. Check the Mitsubishi website for the exact details of the warranty, which is good for three years. Now that we've got that out of the way, let's check out the actual monitor.

The DV172B has a very workmanlike exterior, with a simple black bezel and a chunky black plastic base. It's also one of the deeper screens in the roundup, but even then doesn't come anywhere near the depth of a whopping big CRT. Connectivity options are somewhat lacking, with only DVI and VGA support,

while an internal transformer removes the need for an external power brick.

The image quality on this monitor was exceptional, with its DisplayMate results being the third best overall, and every pixel was functioning perfectly. And just like the other 16ms pixel response time monitors, the DV172B is free of the motion blur blues. In fact, this monitor was one of the best in the motion blur tests, so we've got no trouble pointing gamers towards this device.

However, it's also one of the more expensive TFTs in the roundup, at a recommended retail price of \$1,049. It's hard to justify spending this much on a monitor when there are others at a couple of hundred dollars less with image quality that is as good.



### PCPP Score

Image Quality: 4.5/5 Overall: 3.5/5



# Panasonic Panaview TX-LCD17SBLK

• Price: \$1,199 • Distributor: Panasonic • URL: [www.panasonic.com.au](http://www.panasonic.com.au)

The model name of this monitor is almost as clunky as its bezel. It's considerably deeper than the rest of the pack, but this is probably due to the fact that it ships with a built-in TV tuner, which makes it a fully functioning LCD television. Strangely absent is an internal power transformer, which should have easily fitted within the deep frame. A wide range of input options await your various plugs, including composite, S-Video, DVI and VGA.

Image quality for this monitor was quite good, coming out around the middle of the pack, while its brightness was slightly disappointing, being one of the dimmest monitors we tested. A 3 year, four dead pixel warranty is also included, which is one of the better warranties on offer.

A pixel response time of between 25 and 40 milliseconds resulted in this monitor being one of the worst of those we tested for

playing games or movies. This probably makes it very unsuitable for PowerPlay readers, whose primary interest is watching stuff get blown into tiny, bleeding nuggets at high speeds.

Thankfully, it didn't have any dead pixels, which would have dragged its score down even further. It's the only monitor in the PowerTest which comes with an built-in TV tuner, which helps to make up for its average pixel response time.

Considering its large proportions and poor pixel response time, the asking price of \$1,199 is quite steep. However, as we had mentioned before, this is the only monitor we tested that has a built-in TV tuner. It's not too hot for gaming, but its added functionality will make it appealing to the couch potato brigade.



## PCPP Score

Image Quality: 4/5 Overall: 3/5

# Philips 170B4

• Price: \$1,199 • Distributor: Philips • URL: [www.philips.com.au](http://www.philips.com.au)

The 170B4 is another black beauty with a very narrow bezel width, lending this monitor a clean and uncluttered look. However, it uses a relatively deep casing, which is curious considering the number of very thin contenders in the roundup. This is probably due to the power transformer having been built into the monitor, so you can use any old PC cable to get it up and running in case you lose the one included. The base is constructed from plastic that, unlike the metal bases seen on a number of the display devices in the PowerTest, doesn't inspire a lot of confidence to handle a thorough beating.

It hasn't got the widest range of connections, only supporting VGA and DVI inputs, and it also scored one of the lower image quality ratings. Again, this doesn't make it a bad monitor, as all of the monitors were extremely closely matched in the IQ arena. Thankfully, it was totally clear of any dead pixels. And if it did have any dead pixels, Philips' brilliant zero

bright pixel return policy means that you can return this monitor as soon as one bright pixel dies. Taking out the third brightest of all of the monitors isn't too shabby, but its pixel response time of 25ms is very average, and makes it unsuitable for the gaming crowd.

Unfortunately, the 170B4 is overpriced compared to its competitors. However, the brilliant warranty policy goes some way to making up for the high price.

## DVIOUS

CRT monitors use a VGA plug, while many TFTs now feature a DVI connection. This stands for Digital Video Interface, and is recognised as being a superior input option to VGA. Thanks to DVI being a digital interface, it results in better accuracy of colour and geometry, and is less prone to interference. If you're buying a TFT monitor, try to get one with a DVI input - provided you've got a videocard with DVI out.



## PCPP Score

Image Quality: 4/5 Overall: 3.5/5



## Samsung 172w

• Price: \$1,499 • Distributor: Samsung • URL: [www.samsung.com.au](http://www.samsung.com.au)

The 172w is a strange beast compared to the other monitors. As you can see from the photo, it's one of the few 17" widescreen monitors currently available.

This means that instead of the native resolution of 1280x1024 that every other monitor in the PowerTest uses, the 172w has a native resolution of 1280x768. Which is a problem for gamers. There aren't too many games which support this resolution, so to run at a different resolution the monitor must rescale the image, and when rescaling takes place the image quality suffers greatly.

However, when it comes to watching DVDs or DivX rips, it's hard to beat the 172w. Films naturally look better on a widescreen format, as that's the way they're filmed, so you don't need to jam the image into a narrower format or drop the edges of the image. The 172w also had exceptional image quality, and was the second brightest of all of the monitors in the roundup. A refresh

rate of 75Hz is also a feature worthy of note, as almost every other monitor in the roundup has a rate of 60Hz. Considering it's a 25ms pixel response time screen, we were pleasantly surprised to see that motion blur didn't suffer greatly, so it's more than adequate for your movie viewing pleasure. Surprisingly, for a monitor that is aimed at the movie lovers, the 172w is lacking S-Video or composite inputs.

Just like widescreen televisions, you'll pay a premium price for a widescreen LCD TFT. While this has deterred me from widescreens in the past, it's obviously not much of a concern for those with packed wallets. This high price is also offset by an excellent warranty, which specifies that you can get a replacement monitor within 3 years of the purchase date if three pixels die, or if one pixel in the centre of the screen dies. Recommended for those who like to watch movies on the PC, and have just inherited a massive chunk of cash from a rich, dead relative.



### PCPP Score

Image Quality: 4.5/5 Overall: 3/5

## Solarism LM1711S

• Price: \$1,200 • Distributor: Solarism • Phone: (02) 6026-4190

This monitor certainly isn't going to be taking out any beauty pageants. It's one of the few LCDs that has had a bad beating with the ugly stick, with a thick silver bezel that looks as if it's constructed out of 100% cheap plastic.

On the back side, you'll find a comprehensive range of input options, with DVI, VGA, composite and S-Video all ready to go. Considering the relative thickness of this monitor it's surprising that an external power transformer is still required.

For the price you'd expect this monitor to be one of the top performers. It wasn't. While it wasn't shocking by any stretch of the imagination, it was noticeably poorer than the top performers in the roundup, and this wasn't helped by the presence of a dead pixel. Motion blur was also quite significant, which is due to the 25ms pixel response time. Probably the only highlight of this monitor was its excellent 3 year, three dead pixel warranty.

We weren't expecting this monitor to be astounding, as Solarism isn't a brand that is well known in Australia. In fact, judging by its performance and looks, we expected this to be one of the monitors that retailed for around the \$750 mark, like the Auriga. However, after knowing the retail price of \$1,200 we have no choice but to tell you to steer clear of this monitor.

### OFF ON A TANGENT

In the past, viewing angles have been a problem for TFTs. As you move away from the ideal centre viewing position, contrast and colour issues start to crop up. However, for the purpose of this review, we assumed that the primary purpose for your TFT will be gaming, and were pleased to note that every single monitor looked perfect from the central viewing position.



### PCPP Score

Image Quality: 4/5 Overall: 2.5/5



# Sony SDM-HS73

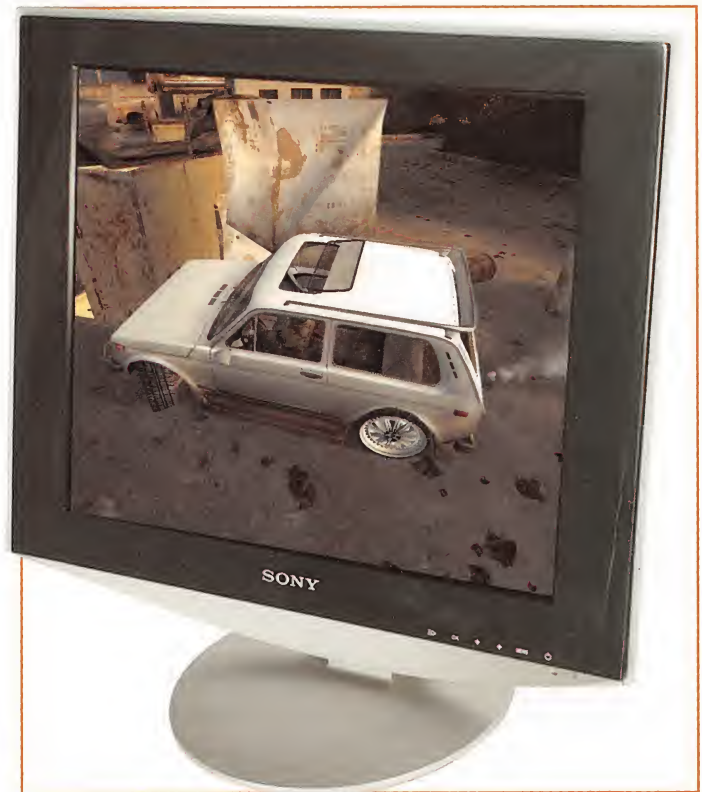
• Price: \$1,149 • Distributor: Sony • URL: [www.sony.com.au](http://www.sony.com.au)

While Hercules is known for its sexy product designs, nobody comes close to Sony when it comes to pleasing the eye. Take a look at the SDM-HS73 for example; while the bezel is relatively thick compared to the competition, Sony has managed to make this bulky bezel one of its selling points. This focus on design even carries over to the rear of the monitor, where all of the input connections are covered by a swanky curved plastic panel.

Sony also has a great reputation for producing display devices with eye popping image quality, and the SDM-HS73 is no exception. It performed superbly in all of the image quality tests, scoring in the top five for the DisplayMate tests. Strangely, it had one of the lowest brightness ratings of all of the monitors, yet it was more than bright enough to use in a glary environment. Sadly, its warranty policy is very

average, with a maximum of five dead pixels before you can return it, although it depends on where these stuck pixels are (if they're in a cluster, you can return it with less stuck pixels).

Inputs options are very lacking - VGA is all this monitor provides for; surprising, considering the steep asking price. Speaking of the price, the SDMHS73 is very expensive considering its high pixel response time and lack of input options. At \$1,149 we can't see why you'd want this monitor, unless aesthetic values are high on your list of priorities. And if they are, stop being such a wanker - it's all about the games, okay?



## PCPP Score

Image Quality: 4.5/5 Overall: 3.5/5

# Viewsonic VG700

• Price: \$850 • Distributor: Viewsonic • URL: [www.viewsonic.com.au](http://www.viewsonic.com.au)

As a company which specialises in display devices, we had a feeling that Viewsonic would do pretty well in the PowerTest. So we felt pretty chuffed with our powers of intuition and prediction when we fired up this pearly and were promptly blown away by its all round excellentness. If that's a word...

It doesn't have the sexiest bezel known to humankind, so isn't going to win any design awards, and is actually one of the thicker monitors in the roundup. It's lacking in input options, with only a single, simple VGA connection, which is probably the biggest fault of this monitor. Considering you can pick up monitors such as the Acer AL732 with all of the common input options at a relatively low price, it's surprising that so few of the other monitors had the same range of input options.

Its DisplayMate results were particularly impressive, and

resulted in taking out the number two spot for image quality. The only test it didn't excel at was the mid-range streaking, exhibiting a little bit of ghosting in the mid-range contrast image. Its motion test results were very impressive, no doubt a result of its 16ms pixel response time. As for the warranty, it's pretty stock standard, with a 3 year, five dead pixel policy. As a result, we'd have no problems recommending this monitor for gamers.

However, it's still not quite as good as our favourite, the Acer, but only by the slightest of margins. And sadly, there is no cigar for second place...



## PCPP Score

Image Quality: 4.5/5 Overall: 4/5



# Billion 743GE Wireless ADSL Firewall/Router bundle



• Price: \$369 • Distributor: PC Range [www.pcrange.biz](http://www.pcrange.biz) • Product URL: Billion [www.billion.com.au](http://www.billion.com.au)

**C**ables are so 1999. These days it seems wireless is all the rage, however, wireless networking kits are usually priced exponentially higher than standard cabled gear. So it's hard to justify spending six or seven hundred bucks just to get rid of a single cable, unless you happen to be an obsessive compulsive with an unnatural fear of cords. Thankfully, prices of wireless kits are plummeting faster than AMD's share prices, and the Billion 743GE bundle from PC Range is a great example of how affordable this technology is now becoming.

For a tad under \$370, you get a wireless ADSL firewall/router, as well as two wireless network cards (PCMCIA for laptops or PCI for desktops - you get to decide the combination you want, depending on your needs). This kit uses the 802.11b WiFi standard, which is limited to 11Mbps, equaling roughly 1MB per second. This

speed is fine for gaming and web browsing, but it's around 10 times slower than a 100Mbps cabled network when it comes to copying files across your network.

Setting up the kit is surprisingly easy, and it's compatible with every DSL provider in Australia. Just hit the Quick Start then Scan buttons, and within seconds the DSL modem has automatically detected the protocols that are used by your DSL provider. After that it's just a matter of entering your ISP username and password and you're up and running. However, if things don't work automatically, the flimsy manual probably won't be of much help, so it's nice if you

can get a network proficient geek pal to help out if things don't go quite as planned.

The range of the wireless connection seems on par with similar wireless kits, and there are also four Ethernet ports on the back of the router for hooking up your old cabled gear.

The biggest selling point of this

kit is easily the price - you'll be hard pressed to find anything that's even remotely close. And for the money, unless you're going to be copying lots of large files across your network, the Billion 743GE bundle might just tempt you to make the switch to wireless.

**Jason Taylor**

## SPECIFICATIONS

- Supports most DSL connections (bridged, routed, RCF1483, PPPoE, PPPoA, etc)
- NAT natural firewall

## PCPP Score

Not only cheap, but feature-rich and easy to set up. Provided you're not going to be copying huge files over your network, this kit is highly recommended.

**90**



# InFocus Screen Play 4800

• Price: \$3,499 • Distributor: InFocus • Product URL: [www.infocus.com](http://www.infocus.com)

**A**s we saw last month with the EMP-S1, projector prices are dropping faster than the body of an IT investor hurling himself out the nearest window after the dot com crash. For those of us who aren't lawyers, doctors or CEOs, we can finally afford a relatively decent quality projector without having to sell our kid sister to the local Triad gang. The InFocus SP4800 is the latest affordable projector to grace PC PowerPlay's pages - but is it worth three and a half grand when the EMP-S1 is available for a mere two?

Like the Epson projector, the SP4800 has a native resolution of 800x600. However, where these projectors differ is the SP4800's use of DLP (Digital Light Processing) technology, whereas the EMP-S1 uses a simpler LCD based technique. DLP uses a digital micromirror device to project the image, which is comprised of several thousand tiny mirrors - one

for each pixel in fact. This has a couple of major benefits over the simpler LCD technique used by the Epson EMP-S1; better contrast and less pixelisation when displaying moving images. So while both of these projectors use the same resolution, the SP4800 throws an image that is noticeably less 'grainy' than the Epson. The other major benefit is the higher contrast ratio (which is simply the colour gap between white and black). As a result, this projector is much better for playing games than the EMP-S1, as it doesn't suffer as badly from muddy darker scenes that are prone to LCD projectors.

It's also a smaller projector than

its Epson competitor, again due to the use of DLP technology. However, the fan does seem a little noisier, which is probably thanks to the fact that DLP projectors aren't quite as light efficient as LCD projectors, and thus need a higher wattage globe which results in more heat.

The final difference between the two is price. At \$3,499 this projector is going to be more of a financial stretch than the EMP-S1.

However, it's easily the better of the two when it comes to gaming, so if shooting things on a screen twelve feet wide will be the number one use of your projector, you can't go past the InFocus SP4800. On the other hand, if you're just going to be watching DVDs and DivX rips, you might like to check out the Epson model, as it's almost as good for films at just over half the cost.

**Bennett Ring**

## SPECIFICATIONS

- Brightness = 1100 ANSI
- Contrast ratio = 2000:1
- S-Video, Composite and HD15 VESA inputs

## PCPP Score

It only just scrapes in as affordable, but for gaming it's well worth the extra cost. Start saving those pennies now.

**80**





## JNC SSF-302 MP3 Player



• Price: \$449 • Distributor: JNC Digital [www.jnc-digital.com.au](http://www.jnc-digital.com.au) • Product URL: [www.jnc-digital.com.au/products](http://www.jnc-digital.com.au/products)

We love MP3 players that are manufactured by the Chinese for one very good reason. Copy protection, or to be specific, a lack of it. Who wants to spend hours figuring out an unintuitive piece of uploading software when you can simply drag and drop music files onto your MP3 player as if it was another hard drive? The SSF-302 is the latest MP3 player from a Chinese manufacturer and, as expected, you can simply plug it into a USB port on your PC and start uploading to your heart's content without installing any clunky software.

Thanks to this simple method of transferring music, you can also use this MP3 player as a 256MB removable USB disk. Neat, huh? And with 256MB of onboard memory, you'll be able to fit four or five full albums of MP3s onto this player with plenty of room left over for your Word .docs or Excel spreadsheets.

The SSF-302 is a rather odd looking MP3 player, bearing a

striking resemblance to a Cyborg lipstick. The control stick makes navigating through your albums and playlists a breeze, although it is a little laggy, taking a second or so to register each click. Patience is the key, Grasshopper. The screen uses a seven colour LED, and we noticed that the plastic cover over the top of this isn't quite a tight enough fit, with dirt and dust managing to make it in between the LED screen and the cover, but this isn't a major issue.

Sound quality is excellent, which is probably due in part to the inclusion of a pair of top quality Sennheiser MX400 ear buds. If there is one complaint I could make about the sound, it's that this MP3 player isn't quite as loud as my rave-damaged ears desire. For those of

you with better than 70% hearing, you'll probably find volume levels to be more than enough.

Once you're sick of playing MP3s, you can catch your friends saying things they'll probably regret with the built-in voice recorder, which can store up to eight hours of their drunken rants. It's also got a built-in FM radio, and you can also record direct from the radio. A single AAA battery supplies the

juice, and we found that a decent quality battery would provide around 8 hours of playback.

Rounding off this attractive package is a very reasonable price of \$449 - you can't ask for much more at this price. So if you're looking for an above average MP3 player at a competitive price, you can't go past the SSF-302.

**Bennett Ring**

### SPECIFICATIONS

- 256MB
- WMA and MP3 support
- USB
- Mac and Windows supported

### PCPP Score

Despite a couple of easily overlooked quirks, the SSF-302 is a top notch MP3 player, with the added benefit of zero copy protection.

# 89



## Asetek Waterchill

• Price: \$389 • Distributor: PC Range [www.pcrange.biz](http://www.pcrange.biz) • Product URL: [www.asetek.com](http://www.asetek.com)

Once more into the breach my friends, once more. Water cooling is here to stay and a sure-fire way of pushing your 3GHz processor closer and closer toward that elusive 4GHz.

Unlike last month's Hydrocool 200 from Corsair, Asetek's WaterChill fits completely inside your case, combining the invisibility of a do-it-yourself water cooling system with the reliability of something chunkier.

Pump, reservoir, control unit and block (obviously) can all be firmly suction-cupped into place inside the case, leaving the outside world none the wiser that your mighty machine is cooling by that most refreshing of liquids, H2O.

The block itself is copper on the business end and glued into a plastic mounting bracket which has holes for all processors except Slot 1. Yes, that's right, you can run this on old Durons, old Celerons, anything. We ran it on a Pentium 4 3.0GHz 800MHz FSB machine, the same unit

we used to test the Hydrocool.

The radiator is square and has a 120mm Sunon fan bolted to it, which can run at 7V or 12V depending on how much like a 747 you want your PC to sound. The square design works best with cases that have a 120mm fan exhaust vent on the back, so if yours doesn't, it might be time to get drillin'.

The Waterchill is about \$110 cheaper than the Hydrocool, but its performance lags only slightly behind. While the stock P4 cooler on our test machine runs an idle CPU at 38 degrees and Hydrocool runs it at 32, the Waterchill manages a slightly warmer 34. Under load the top-of-the-range Hydrocool manages

42, the Waterchill 45 and the poor old stock cooler only 52.

But these extreme coolers are all about overclocking. The Hydrocool unit managed to lift our 3GHz machine to a very respectable 3.7GHz and run both the SiSoft Sandra CPU burn-in and 3DMark03 looping for ten minutes successfully. The Waterchill couldn't handle such a high clock speed but still managed an extremely satisfying 3.67GHz.

So it goes, you sacrifice about 30MHz of overclocking potential

and in the process spend \$110 less and get a cooling system that hides away inside your case and doesn't scare the neighbours.

It's not as elegantly designed as the Hydrocool though, with less secure fittings (although they're still very tight and don't leak) and an awkward pass-through power cable that piggybacks on your PSU. But the Waterchill is designed for invisibility, and invisible it indeed is.

**Anthony Fordham**

### SPECIFICATIONS

- Pushfit seals to prevent leaks
- Mounts for all socket processors
- 120mm fan can run at 7v or 12v for noise control- Pump capable of 700 litres/hour

### PCPP Score

Effective cooler, but a little fiddly to install. Won't ruin the cut of your case, but don't expect performance on par with an external unit.

# 80





# SiS648FX

• Price: N/A • Distributor: N/A • Product URL: [www.sis.com.tw](http://www.sis.com.tw)

Just as we'd begun to believe SiS had gone dormant with enthusiast motherboard chipsets, the Taiwanese chipmaker produces the SiS648FX, managing to slip under the radar during the commotion caused by Intel's anticipated 865 and 875 chipsets. At the time of writing, the retail boards were still fairly difficult to find, so SiS kindly sent a reference board directly from Taiwan. We eagerly unpacked the board, set it up on the test bed and proceeded to run through a slew of benchmarks.

The more avid PCPP readers will recall a number of SiS648-based motherboard reviews from earlier issues, and as you may have guessed, the 648FX is the 648's successor. Although there aren't many major differences between the two chipsets, the FX brings one very important feature to the table; 800MHz FSB support. On top of this, the SiS648FX supports up to two DIMMs of DDR400 and up to three DIMMs of DDR333/DDR266 memory, AGP 8X, six USB 2.0/1.1 Ports, 10/100MB Ethernet, three IEEE1394 (firewire) ports, 6-channel AC'97 onboard audio, ATA 133, up to six PCI slots, and finally, two independent Serial ATA 150 ports provided by the new SiS 180 controller. Furthermore, the northbridge and southbridge are linked together by a bi-directional 533MHz 16-bit data bus, which, similar to VIA's V-Link technology, should provide a welcomed performance boost.

Put simply, the SiS648FX's feature set is almost identical to that of the i875 and, thus, in direct competition. That said, it is important to note that while the i875 supports dual channel memory, SiS has opted to stick with single channel on the SiS648FX, which will certainly make things a lot more interesting when comparing performance. Before we go any further, please keep in mind we are testing a reference board, so to discuss in-depth details regarding layout, stability and overclocking is irrelevant, as these factors are likely to change as the chipset matures and when retail boards hit store shelves. That said, what this review will do is give you a good idea of the performance you can expect from boards based around the SiS648FX chipset at default speeds.

The board was tested on our usual test bed that consists of a Pentium 4 2.6C (800MHz FSB), an HIS Radeon 9700 Pro, 2x 256MB sticks of Corsair XMS3200, and a Seagate ATA100 7200RPM hard drive running Windows XP Service Pack 1 and ATI's Catalyst 3.5 drivers. For comparison purposes, an ABIT IC7 (i875) board was also tested with memory timings

locked at 2,2,2,6 for all tests. As you can see from the graphs from our benchmarking suite (which includes UT2003, Comanche 4, Jedi Knight 2 and 3DMark03), the boards remained consistently deadlocked, with the i875 slightly edging out the SiS648FX in every benchmark by only a margin of 3-4% at best.

Out of curiosity, we decided to venture into the board's BIOS before attempting to overclock. To our surprise, the BIOS, which was relatively bare, not only allows you to enable/disable Hyper Threading and adjust FSB speeds, but it also features the largest selection of memory ratios we've seen on a Pentium 4 motherboard to date. SiS has included almost every ratio you would desire and then some. We're crossing our fingers that the same options will be made available to us on retail boards, as well. As far as overclocking goes, while we'd reached FSB speeds of up to 300MHz (effectively 1200MHz) on the IC7 in the past, the SiS648FX refused to boot at anything above the processor's default speed of 200MHz. Again, keep in mind the SiS648 chipset is a reference board, however, it still wasn't an overclocker's dream.

As it stands, the SiS648FX chipset provides a level of performance that is definitely among the best, and its feature set is nothing less than what we've come to expect from modern motherboard chipsets. The price doesn't exactly hurt either with TechBuy currently retailing the ASUS P4S800 SiS648FX board for just \$192.50. This is great value when you consider the ABIT IC7 retails for \$265.70. Value aside, overclocking performance is still an unknown quantity and if we judge on the yields given by its predecessor, the SiS648, then we won't be expecting them to be nearly as high as that of most i875 boards currently on the market. The bottom line is if you're after a cheap, high performance, feature-rich motherboard for your shiny new Pentium 4, you'd be foolish to overlook the SiS648FX. Just make sure you have your receipt handy if you end up trying to overclock.

Asher Moses

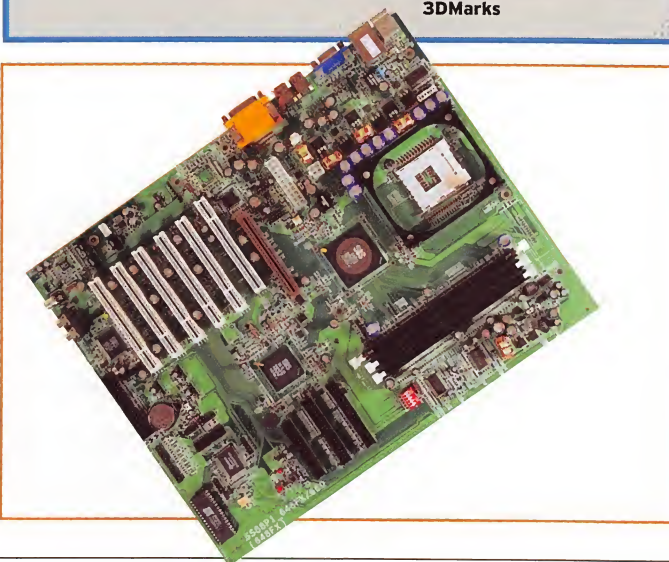
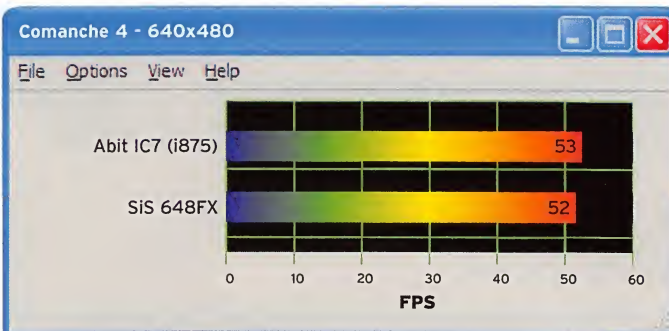
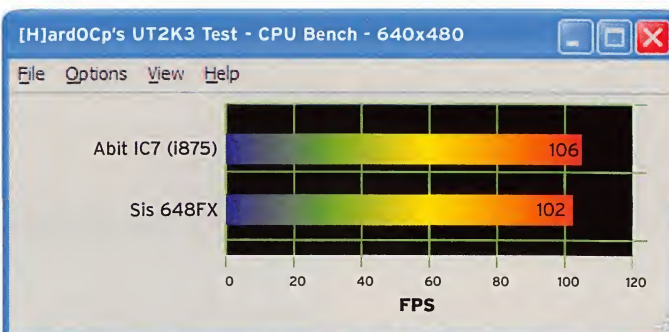
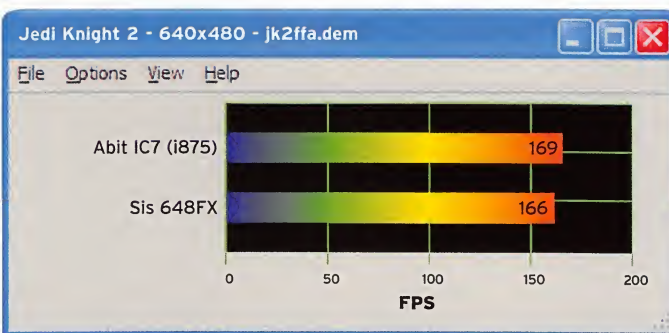
## SPECIFICATIONS

- AGP 8X
- DDR400 support
- USB2.0
- 6-channel AC'97 audio
- 10/100 Ethernet
- Six PCI slots
- Three firewire ports
- Two independent Serial
- ATA 150 ports
- Bi-directional 533MHz 16-bit data bus links the northbridge and southbridge

## PCPP Score

Everything you could ask for in a Pentium 4 motherboard chipset - except overclocking potential and dual-channel memory.

80





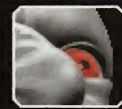


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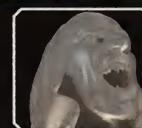


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## TouchTone Audio System and Magic Touch monitor add-on

• Price: \$US24.95 (TT), \$US153 (MT) • Distributor: Riptide Innovations, EnableMart • Product URL: [www.mp3touchscreens.com](http://www.mp3touchscreens.com)

If you've ever wanted to transform your PC into a media jukebox, this is the product for you. Whether it is purchased with a touch screen monitor add-on or not, when it is coupled with Winamp 2.8 or 2.9 (this is a requirement), Riptide's TouchTone software is able to generate a playlist from the folder/s you specify automatically categorising each MP3/OGG/WMA file according to the artist's name. Navigation is further simplified by alphabetically listing each artist with subsections for artists with more than one track. Genius.

While the TouchTone application can easily be manipulated using a mouse, you can attach the Magic Touch touch screen and use a finger or the included stylus to select tracks and navigate through the various menus at your leisure.

The TouchTone interface is a full screen layout and each button and scroll bar is large enough to be pressed without frustration.

Furthermore, Riptide has also included a handy search utility with a built-in keyboard for those with extensive music collections, as well as the ability to create multiple playlists to suit the occasion. Rounding out the software's vast feature set is a Party Play mode, which allows you to disable some functions, or all functions except Play to avoid unwanted editing of your configuration. While we spent hours trying to fault TouchTone, we had to conclude that the programmers at Riptide Innovations haven't missed a thing as far as functionality is concerned. There is even a log feature that allows you to keep track of what users have been playing, an option to display album cover images and an alarm clock to start/stop playing

### SPECIFICATIONS

- Touch screen comes in various sizes to suit your monitor. Think of the TouchTone software as an enlarged version of Winamp

music at certain times. As for the touch screen itself, the only issue we had was the glass had to be cleaned regularly of fingerprints.

The Touch Screen kit comes in various sizes to suit a variety of monitors, and, although installation is quite tricky at first, the provided documentation eases you through it without issue. The whole package comes in at \$US177: Magic Touch retails for \$US153 and the TouchTone application sets you

back \$US24.95 (although there is a free trial version on Riptide's website). While the touch screen itself can be used with any mouse-driven application, gamers will most likely retain the mouse as touch screen controls can end up feeling awkward. That said, if are looking to spice things up a bit for your guests, the MP3 Touch Screen kit is an affordable and feature-rich accessory.

Asher Moses



### PCPP Score

While being of little use to gamers, if you're looking for something to entertain your guests, you'll be hard pressed to find a better solution than this.

# 80

## Compro VideoMate TV Gold Plus

• Price: \$138 • Distributor: AKA Technology [www.akatech.com.au](http://www.akatech.com.au) • Product URL: [www.comprousa.com](http://www.comprousa.com)



Once viewed as little more than a techno gadget owned by only the laziest of geeks (that stupid TV remote is always centimeters out of reach, dammit!), the TV tuner has risen in popularity at an astounding pace over the last few years. This is probably due to technology having matured enough so that image quality is nearly identical to a regular TV.

Raising the bar one step higher, Compro's latest solution, the VideoMate TV Gold Plus includes support for NTSC, PAL and SECAM1 TV formats, a maximum resolution of 720x480, MPEG 1 and 2 compression, FM stereo, a TV input, FM input, S-Video input, Composite input, IR sensor input, and an Audio input/output. Furthermore, the tuner utilises Philip's 7133/7134 chip, which supports both antenna and cable sources, though most of you will be using the former.

The card is bundled with a 37-key remote control with batteries, an IR receiver, an FM antenna, an ATX

power switch cable, an internal and external audio patch cable, a Quick Installation Guide and a User's Guide. The bundled remote is quite handy and, with a more than adequate range, can conveniently manipulate the tuner from the bed, couch, chair, toilet and <readers, insert other seating device here>.

Installation is a relatively painless affair, with the included documentation being more than adequate as far as instructions and troubleshooting is concerned. After plugging the card into a spare PCI slot, hooking up an antenna and

connecting the audio patch cable from the TV tuner's audio-out to your soundcard's line-in, all you need to do is hit 'AutoScan' and let the software take over.

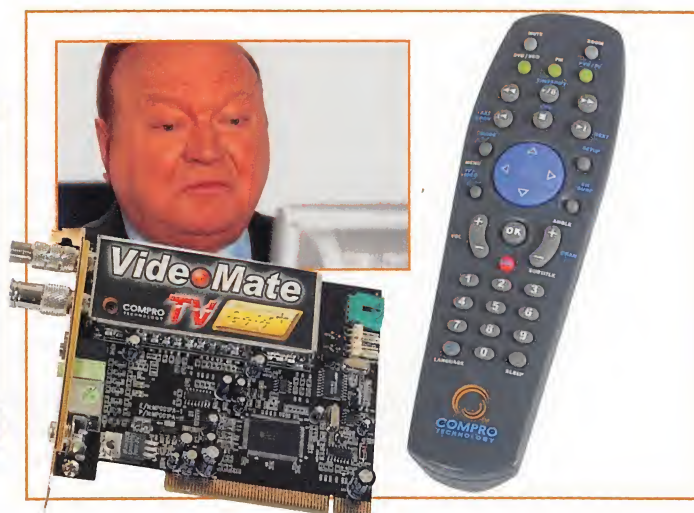
The card picked up all channels perfectly, and as you can see from the screenshot, picture quality is almost flawless with crisp colour and little ghosting. The VideoMate also features a power up scheduling function, which will automatically power up

your PC for recording TV programs while you're out, timeshifting abilities (pause live shows) and FM radio. Couple this with the value price of \$US75 and the plethora of bundled software (Compro DVD, DVD MovieFactory 2 SE and VideoStudio 7 SE DVD), and the Compro VideoMate TV Gold Plus is a worthy addition to any low-cost home-theatre setup.

Asher Moses

### SPECIFICATIONS

- Supports NTSC, PAL and SECAM1 TV formats
- Maximum resolution 720x480
- MPEG 1 and 2 compression
- FM stereo, and includes TV input, FM input, S-Video input, Composite input, IR sensor input, Audio input and an Audio output.



### PCPP Score

Flawless picture quality, great software bundle, easy installation and good value. Highly Recommended.

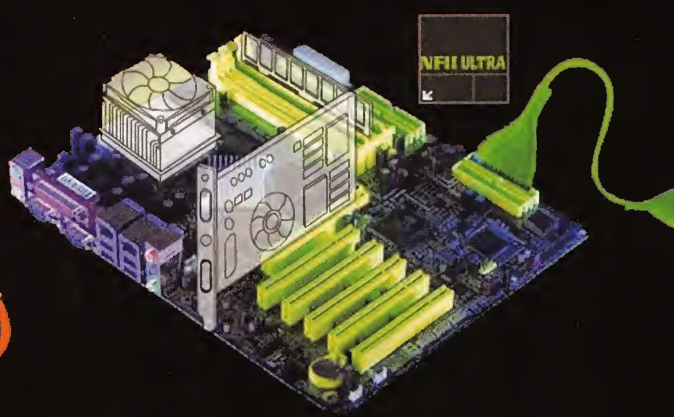
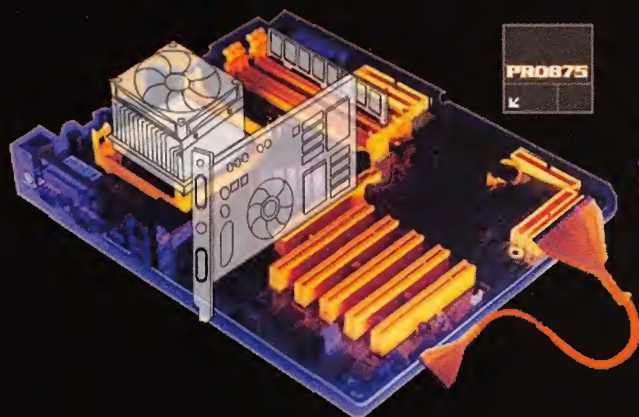
# 90



TARGET LOCKED.....



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ATI RADEON 9800PRO



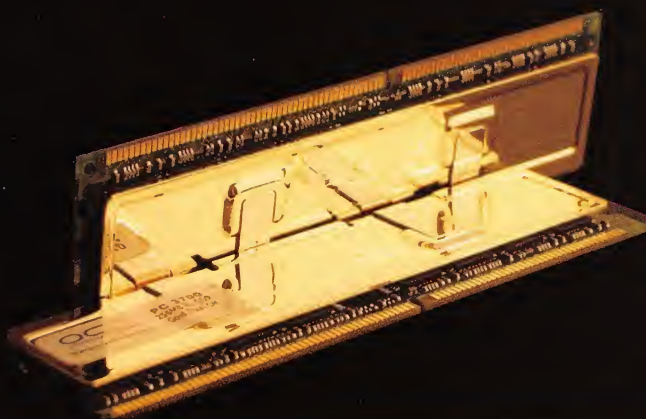
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# MSI KT6 DELTA

• Price: TBA • Distributor: MSI • Product URL: [www.msi.com.tw](http://www.msi.com.tw)

With the Pentium 4 2.4C available now and overclocking to 3.3GHz using just the standard Intel supplied cooler, you'll have to forgive us for occasionally forgetting AMD users. While AMD CPU releases over the past few months have been pretty uninteresting, a battle for chipset dominance has been raging between VIA and NVIDIA.

VIA used to be king - the KT266A was one of the finest chipsets ever released for any platform, and NVIDIA's 'lets have a go' answer in the form of the nForce was interesting but lacked, shall we say, oomph.

The nForce2 was a far more impressive prospect, and the currently available nForce2 400 Ultra is the king of AMD-enabled motherboards - 200 fsb Barton support, dual channel DDR400 RAM, Serial ATA and a solution that will keep you going until you get the Radeon 9800 Pro. By contrast, the KT400 and KT400A lagged behind and were passed over by most discerning buyers in favour of the NVIDIA solution. But is it too late?

Let's examine the board. Thanks to the new VT8237 Southbridge, there's on-chip Serial ATA now, with two channels for four devices, so motherboards with RAID controllers can support RAID0, RAID1 and RAID1+0. The board also includes eight USB2.0 ports as standard, although since we've long come to expect this many USB ports, this is nothing special. There's also support for DDR400 RAM (as well as slower 333, 266 and 200), although VIA is maintaining its stance on not including support for Dual Channel - the company maintains that the double-pumped nature of the Athlon makes it unsuitable for dual-channel running. Extra bandwidth wouldn't have hurt.

So basically, the updates include support for the newer 200FSB Bartons, on-chip SATA, extra USB2.0 points and DDR400 RAM. Hmm... seems a bit slim.

The other omission on the KT600 is lack of FireWire controllers. Intel's 865 and 875P both have them, the nForce2 has them, so it looks like VIA is continuing to bank on the relative obscurity of the interface and so omitted a controller to keep prices down. It's the same thinking that saw the omission of Dual Channel memory support - it won't get an opportunity to shine on a mobo without integrated graphics, so leave it out to keep it cheap. However, MSI has decided that its iteration of the KT600, the KT6 Delta, does deserve FireWire and includes three headers and PCI-slot panel ports of its own.

A quick word on some of the more mundane aspects of the board - three DIMM slots support up to 3GB of memory, once again the omission of Dual Channel means the omission of a fourth slot, which should result in a cheaper board. There are three IDE headers, five PCI slots, AGP 8X of course, onboard Ethernet (but not Gigabit Ethernet), six USB2.0 ports on the rear plate and a header for the seventh and eighth, once again provided by MSI on a PCI-slot panel.

MSI's layout for the board is good and thanks to the three DIMM slots, spacious. The power headers are kept on the edge of the board and there's room for even larger videocards such as the Radeon 9800 Pro 256MB.

All that remains then is to determine whether the board is a viable alternative to the nForce2 400 Ultra. And after running it through the full gauntlet of PCPP PowerTools we'd have to say... not really.

We compared the KT6 Delta against MSI's own nForce2 400 Ultra, the K7N2 Delta. We ran the nForce2 board in single-channel memory mode for a truer apples-to-apples comparison. And as you can see, the results are not exactly in VIA's favour.

In all of our tests, the KT600 came in a small but significant 2%-8% slower than the nForce2, and that's with NVIDIA's board running in single channel mode, instead of the bandwidth-superior dual channel.

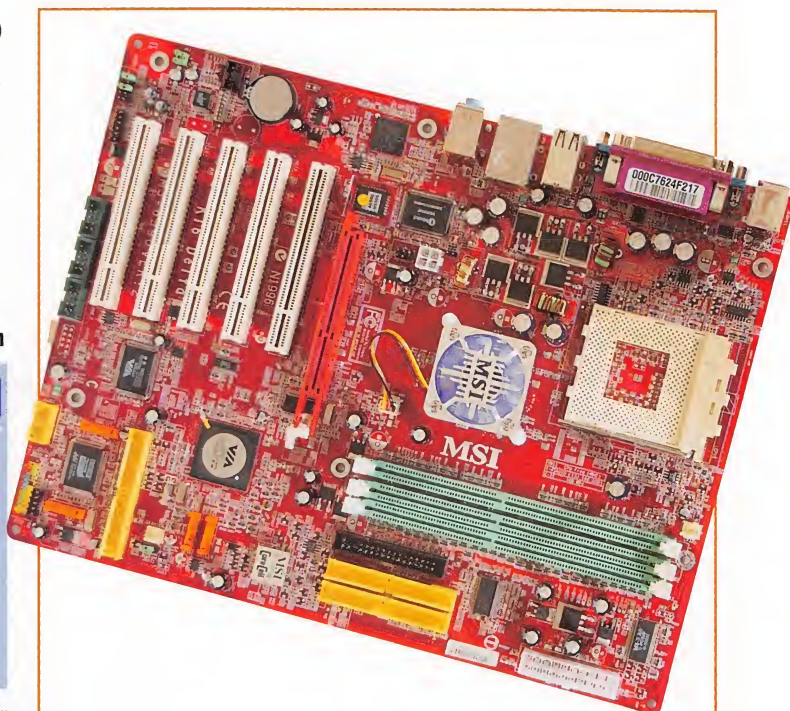
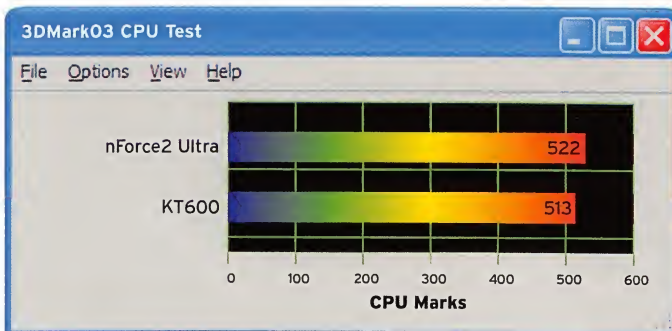
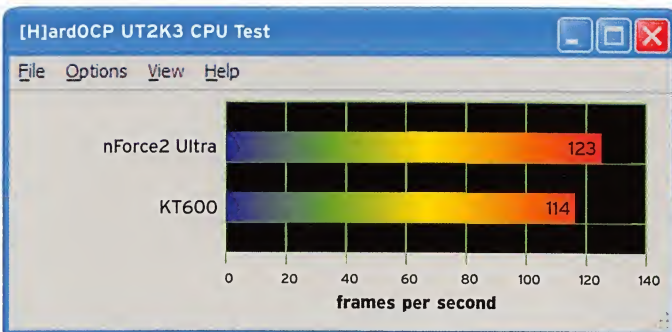
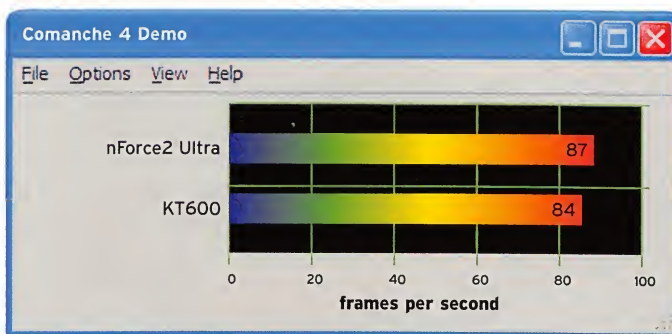
It seems that VIA's days in the sun are long gone. The company is playing catch up with NVIDIA, and even though this latest chipset has most of the features of the older nForce2 400 Ultra, it still lacks Dual Channel memory, FireWire on chip (although you can expect most to provide their own FireWire solution) and an onboard graphics solution, although this last is a deliberate and quite justifiable feature set decision rather than a true omission.

Pricing for the KT600 is still being decided as we go to press, but unless the board comes in significantly cheaper than an nForce2 400 Ultra solution (and we're talking \$80 or more), we'd be hard pressed to recommend the KT600 over the more able NVIDIA offering.

Anthony Fordham

## SPECIFICATIONS

- VIA KT600 chipset
- Support for 200FSB Barton AthlonXPs
- Serial ATA RAID (4 ports)
- 8x USB2.0 ports (6 on back plate)
- AGP 8X
- DDR 400 support
- Single channel memory only



## PCPP Score

VIA has matched the nForce2 400 Ultra on spec, if you ignore single-channel memory and onboard video.

# 79



# ASUS V9950

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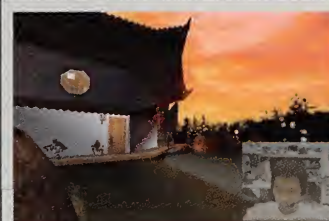
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# Philips DesXcape wireless monitor

• Price: \$3,499 • Distributor: Philips [www.philips.com](http://www.philips.com) • Product URL: [www.philips.com/desxcape](http://www.philips.com/desxcape)

The Philips DesXcape is simply the merging of two common technologies to create a very uncommon product. It's a wireless monitor, and according to Philips, will revolutionise the way you use your PC. And it is revolutionary - provided you've never heard of these obscure things called tablet PCs and wireless LAN technology.

Philips has simply merged a touchscreen-enabled LCD TFT with an 802.11b wireless networking kit. The LCD TFT isn't of the greatest quality, being a meagre 15" big, but you probably wouldn't want any bigger than this if you're going to be lugging it around the house all day. It's around the same size and weight as a tablet PC, and plugs into a rather bulky base, allowing you to use it while you're sitting at your PC, which brings us to the first problem. There is no pass-through functionality at all, so you can't hook up a better quality monitor to be used while you're at your PC - you're forced to use the DesXcape instead. This might be fine and dandy for some, but for gamers the DesXcape just doesn't cut it as a desktop monitor.

It's only when you remove the monitor from its base that you'll realise it's a pretty darn cool gadget. I

must admit that surfing the Net from the comfort of my couch was a hoot, and the ability to enter text on to the screen via the included stylus (using a virtual keyboard or handwriting recognition) was very handy, although it did take about 10 minutes to enter a four sentence email due to the iffy handwriting recognition. It's actually a smart monitor, so you'll need Windows XP Professional with SP1 installed if you want to use it. It's got a range of anywhere between 30 and 100 metres depending on the environment you're in, and battery life is around five hours as it doesn't have many internal components. Due to the bandwidth limitation of 802.11b, you also can't use this monitor to display moving images such as movies or games. Bummer.

Sadly, it's also a total and utter rip off. At \$3,499, we're not sure why it costs so darn much, especially when you consider that all of the components have a combined value

of around \$1,500. And for this price, you're much better off purchasing a decent laptop with a wireless LAN

kit, as you won't be limited to using this device near your PC.

**Bennett Ring**



## SPECIFICATIONS

- 802.11b USB adaptor included
- 15" LCD TFT touchscreen

## PCPP Score

A great concept that points to the future of display devices, but is far too expensive to justify purchasing.

**55**

# Hercules XPS 2.100 Silver

• Price: \$189 • Distributor: Guillemot Australia [www.guillemot.com.au](http://www.guillemot.com.au) • Product URL: [europe.hercules.com](http://europe.hercules.com)

Until now, I had no idea that Neodymium was a Rare Earth - a Lanthanide element. It costs a motza, which may explain why the XPS satellites are smaller than average. Neodymium super-magnets are apparently so strong that eye protection must be worn when working with them. Evidently, if they slam together, the chips will shatter and expel at dangerous velocities. Umm, I'll remember that in the middle of a Half-Life or UT2K3 death match! Given the very high magnetic properties of Neodymium, are the one inch XPS satellite drivers punching above their weight? Or perhaps they're falling on deaf ears?

The slim, sexy, silver satellites are very directional and if the angle is just a bee's dick off, you'll seem to get sound out of one driver only. They are the most inconspicuous speakers I've used and they quickly became invisible on the desktop. But, if you handle a joystick like I do, you may wish to mount these suckers on the

wall or a cabinet-like structure courtesy of the folding base. As usual, the powered sub can sit anywhere, but is best placed under the desk where the ported air can dissipate unobtrusively. Good news, too: this sub has neither wind noise or 'hum'. The sub can't handle full volume nor full bass frequencies, however, 35 real Watts provides enough punch for all the game sound engines I tested. Game sound was realistic with good

depth and a sweet response. Panning and occlusion came through well, although the soundcard develops these effects rather than the speakers. CD music and MP3s were also up to scratch and a quality soundcard will further underpin the frequency responses. As usual, all cables are too short with the exception of the corded remote and its very handy, blue LED.

Aside from blinding me occasionally, it was a boon in the dark and the remote also features a stereo jack for connecting a headset. Apart from that and a 3.5mm analogue-out jack from the soundcard, all other connections are analogue RCA, in and out of the sub. Can the XPS 2.100 punch out the sound? You bet.

**Stuart Calvin**

## SPECIFICATIONS

- Bass-reflex tube 35W RMS subwoofer with a frequency response of 30-150Hz
- Twin 12.5W RMS, 2-channel satellite drivers with a frequency response of 50-20,000Hz
- Amplifier On/Off remote control with Volume, Treble and Bass settings
- 3.5mm headset stereo jack
- Blue On/Off LED
- Foldable metal base for desktop or wall attachment



## PCPP Score

Good value, easy to setup and use. Great for gaming and very good for music.

**84**



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## Bennett Ring

# Powertools

Last month we introduced you to the PowerTools page, and mentioned we'd been corresponding with the big guns of IT hardware to find out the best game-based benchmarks to use in our test suite. Well, we've finally settled on the games we're going to be using, although this is no doubt going to change over time as bigger and better game engines are released. Can anyone say, "Doom 3"?

We contacted Intel, AMD, NVIDIA and ATI to find out which games they recommend for testing. Productivity benchmarks, such as SYSmark, be damned - we're sticking to game benchmarks here, folks. Like we've said before, we're really only interested in game performance, as these tend to be

the most demanding applications you'll most likely run.

Once each company supplied a list of suitable games, we compiled these into two separate categories - those recommended by the CPU manufacturers and those endorsed by the graphics chipset manufacturers. We then narrowed these lists down to games that both competitors recommended. This way we can be sure there won't be any accusations that PowerTools favours one vendor's hardware over the other's.

PowerTools is broken down into two main packages - CPU/motherboard/memory tests, and graphics card tests. The CPU/mobo/mem tests are run at lower resolution and tend to be

very CPU intensive, thus removing the videocard as a bottleneck. Our graphics tests are the opposite, being run at a variety of resolutions starting at 1024x768 and rising, and also use a variety of image quality settings. This gives the videocard, and not the CPU, a thorough workout. CPUs, motherboards and memory tests are all grouped together, as a benchmark for one is good for the other two, as all three components are dependent on each other.

We tested all of our new PowerTool benchmarks to make sure they scaled well. No, this does not mean they grabbed the nearest fresh fish and started ripping off its scales. It actually means the performance of the

benchmark rises in a linear relation to the performance of the hardware it's being tested on. For this reason, we had to exclude a few of our planned benchmarks, such as Freelancer, as they failed to scale well when faster hardware was used or the image quality settings were increased. This month, we'll show you our CPU benchmarks, so you'll have to wait until next month to see what we've got in store for videocard testing.

If you have any comments about our new PowerTools, we'd love to hear them. Drop an email to [bennetttr@next.com.au](mailto:bennetttr@next.com.au) with any suggestions, comments or glowing praise. Oh, alright, some abuse is also welcome. Kinda.

### CPU PowerTools

#### 3DMark03 CPU test

While the graphics chipset manufacturers can't stop bickering about 3DMark03, both AMD and Intel believe the CPU test within 3DMark03 is a valid benchmark for CPU performance. This low resolution test gives the processor/motherboard and memory a thorough spanking.

#### Jedi Knight 2

Patched to the latest version, 1.04, we had to manually extract the jk2ffa demo from a .pak file and rename it to get this bugger to work. The test is run at 640x480 resolution, with all graphics options set to minimum, except for the Geometric detail setting, which is maxed to ensure there are even more polygons for the CPU to think about.

#### [H]ardOCP UT2003 v2.1 benchmark

The new Quake 3 of the benchmarking world, the clever lads at [H]ardOCP created a simple

benchmarking front end that automates the running of time demos. The CPU test is a simple flyby of a UT2003 level, run at a resolution of 640x480.

#### Comanche 4 demo

One of the most CPU bottlenecked games in existence, Comanche 4 is perfect for giving your CPU and memory subsystem a thrashing. We run this benchmark at 640x480 resolution, and set the shaders to software mode to take the load off the videocard.

#### Test Benches

PC PowerPlay uses standardised hardware for the majority of our hardware reviews. Our main testing platform is based on the Intel Pentium 4 2.6C, with the Radeon 9700 PRO as our test videocard. We've also set up an AMD testbench for the testing of AMD hardware. These testbenches were selected based on the knowledge that all components are of the highest quality and reliability, and represent a mid-range system.

#### TEST BENCHES

##### Intel Test Bench (x2) Intel Pentium 4 2.6C

HIS RADEON 9700 PRO  
[www.akatech.com.au](http://www.akatech.com.au)  
Corsair 2 x 256MB XMS3200LL DDR400  
[www.altech.com.au](http://www.altech.com.au)  
Seagate Barracuda 7200.7 160GB ATA100 Hard Drive  
[www.seagate.com](http://www.seagate.com)  
ABIT IS7 865PE motherboard  
[www.altech.com.au](http://www.altech.com.au)  
TOPOWER 470W PSU  
[www.auspcmarket.com.au](http://www.auspcmarket.com.au)  
Mitsubishi Diamond View 2115e 21" monitor  
[www.mitsubishielectric.com.au](http://www.mitsubishielectric.com.au)  
Microsoft multimedia keyboard and optical mouse  
[www.microsoft.com.au](http://www.microsoft.com.au)  
Windows XP Professional  
[www.microsoft.com.au](http://www.microsoft.com.au)

##### AMD Test Bench (x1) AMD Athlon XP 2600+

HIS RADEON 9700 PRO  
[www.akatech.com.au](http://www.akatech.com.au)  
Corsair 2 x 256MB XMS3200LL DDR400  
[www.altech.com.au](http://www.altech.com.au)  
Seagate Barracuda 7200.7 160GB ATA100 Hard Drive  
[www.seagate.com](http://www.seagate.com)  
ABIT NF7-S  
[www.altech.com.au](http://www.altech.com.au)  
TOPOWER 470W PSU  
[www.auspcmarket.com.au](http://www.auspcmarket.com.au)  
Mitsubishi Mitsubishi Diamond View 2115e 21" monitor  
[www.mitsubishielectric.com.au](http://www.mitsubishielectric.com.au)  
Microsoft multimedia keyboard and optical mouse  
[www.microsoft.com.au](http://www.microsoft.com.au)  
Windows XP Professional  
[www.microsoft.com.au](http://www.microsoft.com.au)



[www.akatech.com.au](http://www.akatech.com.au)



[www.corsairmicro.com](http://www.corsairmicro.com)



[www.auspcmarket.com.au](http://www.auspcmarket.com.au)



[www.intel.com](http://www.intel.com)



[www.abit.com.tw](http://www.abit.com.tw)



[www.amd.com](http://www.amd.com)



[www.seagate.com](http://www.seagate.com)



[www.hightech.com.hk](http://www.hightech.com.hk)



[www.altech.com.au](http://www.altech.com.au)

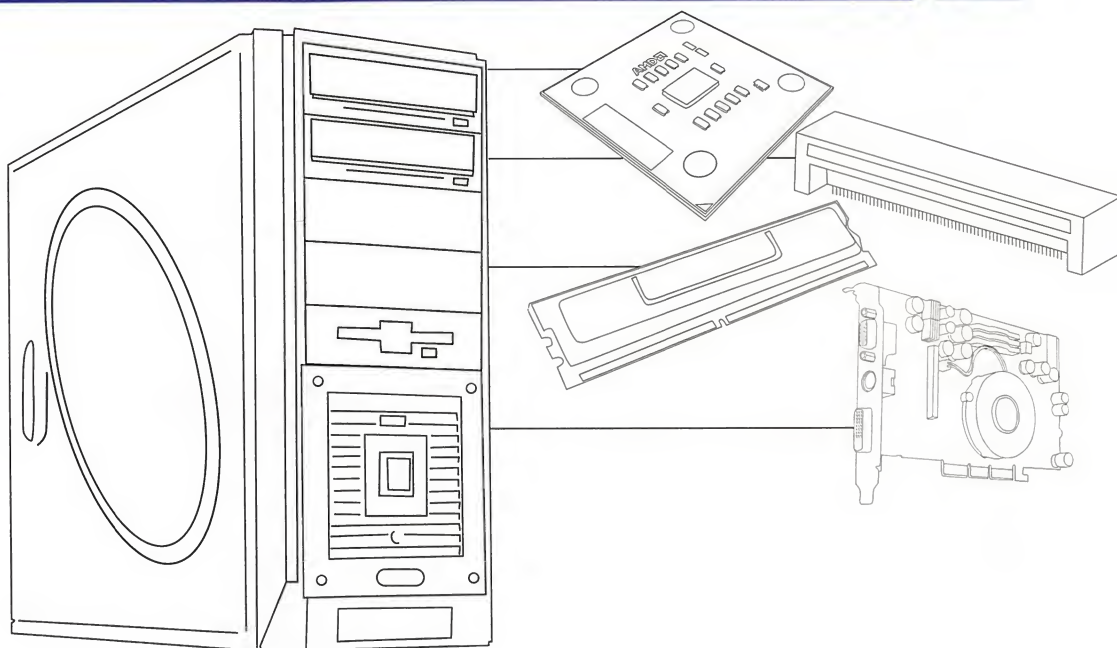


**MITSUBISHI ELECTRIC AUSTRALIA**

[www.mitsubishi-electric.com.au](http://www.mitsubishi-electric.com.au)



“Incorrect using may cause your system to fail or broken! For power End-User use only!” With Gigabyte's 7n400Pro motherboard handbook warning on BIOS tweaking in mind, we're going to revisit some useful memory concepts and settings. Your BIOS may not refer to all of the jargon talked about, or it may use slightly different names for some. Your BIOS may also have some other memory settings that apply specifically to your Motherboard or Chipset. Some of the most useful information is often found on the manufacturer's website and it's always advisable to look for a BIOS update while you're there. The trick is to set the values as low as possible (or higher where specifically stated) and keep a stable system. Your tinkering may result in a performance increase, but remember that not every RAM module is able to work with a h@r k0re setting. Make one change at a time and test afterwards!



**RAM (Random Access Memory):** Electrically charged, volatile storage area. Lots is good!

**SDRAM:**  
Synchronous Dynamic RAM.

**SDR RAM (Single Data Rate RAM):**  
Hmm, time to join the 21st Century. DDR RAM (Double Data Rate RAM): a type of SDRAM that supports data transfers on both edges of each clock cycle, theoretically doubling the SDRAM data throughput. Whereas SDR works on the rising edge only of the clock cycle, DDR also works on the *falling* edge of the clock cycle. Get some!

**Hertz:**  
We've all heard of memory terms like 100MHz, DDR200 and PC1600, but what do they mean and what's the difference? Just before DDR was a reality, we used 100MHz and later 133MHz SDR memory. When DDR memory was developed, more jargon was dreamt up to distinguish it from ordinary, boring, definitely unsexy memory. To avoid the inevitable confusion, DDR-capable RAM was labelled with its doubled data-rate. Hence, 100MHz DDR was coined as DDR200. Later, the sales g0d people did not want you to think Rambus at 800MHz was four times as fast as PC200. So, after a little marketing smoke 'n' mirrors they went with a number that reflects the module's bandwidth, which is not exactly cheating. Since DDR sticks are eight bytes wide, the designation became PC1600 (eight bytes times

double-rate). w00tin' t00tin' DDR400 is PC3200 and thus PC2700 is just DDR333, easy, huh?

**Latency:**  
Refers to the waiting period between stimulus (doing something) and response (something else happening). Liken it, if you will, to the time between triggering a weapon in a fast 3D game and the shot actually coming off. Low-latency working parts in a PC system, (memory timing, screen pixel-response and disk seek-times for example), all add up to more screen kills and that C00L r@z00r feeling. Latency has a special meaning in memory-talk.

**CAS (Column Address Strobe):**  
The memory structure used for 'read from', or 'write to', is divided into columns and rows. Imagine a spreadsheet where the data cells are referred to by column then row, this is how RAM works, too. The CAS is the electrical activity running up the column part of the DRAM memory matrix. Correspondingly, there is a RAS (Row Address Strobe). Because the RAS works a little differently in a physical and electrical sense, 'RAS Latency' is relatively unimportant here. Memory Timings are normally found in the Advanced Chipset Setup. You should concentrate on the Timings first because they usually provide the most spectacular improvement to your computer. What are these numbers?! The BIOS may display some ASIO-type code like: 2-3-3-7-1T. They are in fact CPU clock cycles and represent the essence of RAM

speed. In order, they are variously known as CAS Latency - RAS to CAS Delay - RAS Precharge - Active to Precharge - Command Rate. Quality sticks either have the recommended values printed on them or the packaging. These values have been scientifically and popularly proven to have the most influence on memory performance. Overclockers have pushed the limits of memory beyond spec to achieve higher frequencies by altering these settings. Good to go! If you want to manually configure your memory timings you will need to disable/deactivate Automatic Configuration. If the following should cause your brain to leak from your ears then, by all means, you may creep timidly back to Automatic Configuration, you weeny.

**CAS Latency:**  
1.5/2/2.5/3 The setting that is on everyone's lips but is popularly referred to just as CAS. Basically CAS3 blows and CAS2 or 2.5 (for DDR RAM specifically), is cool. CAS1.5 is just creamy. Some CAS3 sticks do not run at CAS2. If your memory configuration is mixed, such as one stick at CAS2 and the other at CAS3, do not set the memory to the lower CAS2 setting as this can cause stability errors and sucking chest wounds during a game.

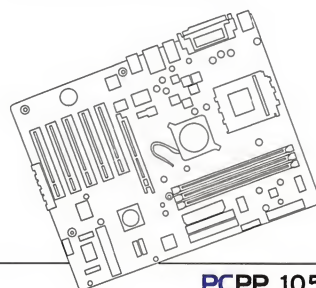
**RAS to CAS Delay:**  
2/3/4/5 This is the amount of clock cycles it takes for the Column Access Strobe to follow the Row Access Strobe; that is, the amount of time a CAS is performed after a RAS. Easy, huh?

**RAS Precharge Time:**  
2/3/4 This is the number of cycles it takes for the RAS to accumulate its charge and determine the row address before a DRAM refresh. If insufficient time is allowed, the refresh may be incomplete and the DRAM may fail to retain data. Whoops - take a head shot!

**RAS Active Time:**  
5/6/7 Set it higher for improved performance. The is the amount of time a RAS can be kept open for multiple accesses. Hehe, good for repeat head shots.

**Command Rate:**  
1T/2T Is the number of clock cycles needed to address the stick and the memory chip with the desired data. By all accounts it should be set to 1T. Apparently, 2T may give you more sucking chest wounds.

**SPD (Serial Presence Detect):**  
Good news for timid weenies (see the 'Numbers?!' problem above). Find the 'Set memory frequency by SPD' in the Advanced Chipset Setup (Memory Timings) and enable it. The eensy-teensy programmable chip mounted on one corner of the stick contains the key values of the RAM. Mainstream sticks have conservative values in the SPD and this crystal wristed, custard-ankled soft-option is just no fun.



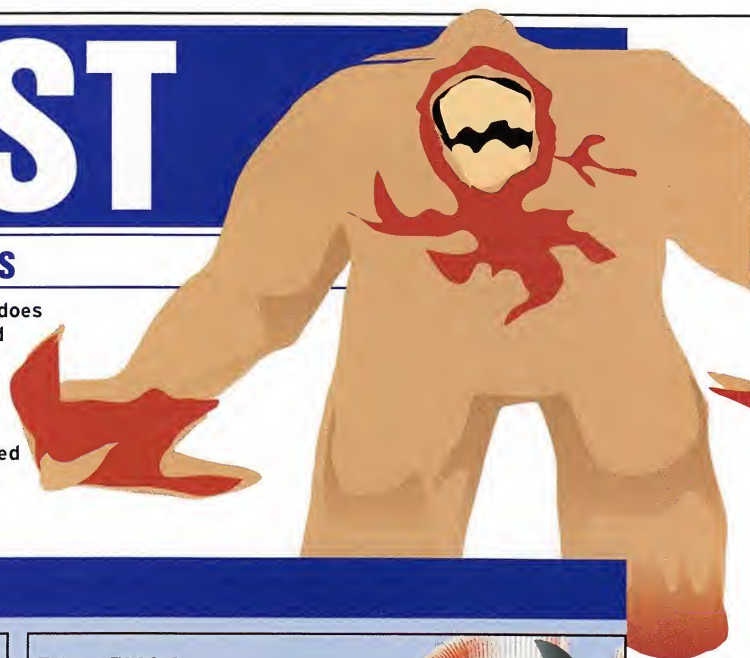


# THE BEAST



## In association with Altech Computers

You won't believe what we've gone and done this month. How does a dropping a RADEON 9800 into each of these systems sound to you? That's right, even The Beastie has a 9800. Sure, it's not a PRO, but you can't complain when you're getting a complete PC, with an AMD Athlon XP 2500+ and a RADEON 9800, for under \$2k. Madness, sheer madness. We've upped the memory in the Beast to DDR500, and whacked a RADEON 9800 PRO into The Mutant. You'll also notice that the prices have changed, with the majority dropping by a few percent at least. Check it out...



## CPU, MEMORY AND MOTHERBOARD

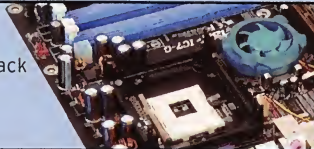
### Intel Pentium 4 3.2GHz 800MHz FSB

Still the fastest chip out of the box, seriously scaring everything from AMD. However, let's hope Intel doesn't rest on its laurels. Bring on 4GHz!  
\$1228 [www.intel.com](http://www.intel.com)



### ABIT IC7-G 'Canterwood'

A hell a board in a hell a package that includes everything from an extra USB back plate to black rounded IDE cables. And it's powered by Canterwood - Serial ATA RAID goodness!  
\$360 [www.abit.com.tw](http://www.abit.com.tw)



### 1GB Corsair TWINX-4000

A gigabyte of DDR500 RAM for \$770. That is just crazy cheap, especially when the RAM in question is this blisteringly fast. The perfect complement to the IC7-G.  
\$770 [www.corsairmemory.com](http://www.corsairmemory.com)



### Zalman 7000-Cu

The Beast is so chunky, so wild and untameable that you need a real man's cooler stuck on the top of your mighty CPU. Zalman delivers, offering a chunk of metal that performs well and isn't too screamingly loud.  
\$75 [www.zalman.co.kr](http://www.zalman.co.kr)



### Antec TruePower 550W

With 550 watts of blistering power you can plug in as many crazy case fans, cooling systems and front-mounted LCD panels as you like and still enjoy smooth, reliable gaming.  
\$233 [www.antec-inc.com](http://www.antec-inc.com)



## VIDEO, AUDIO AND CONNECTIVITY

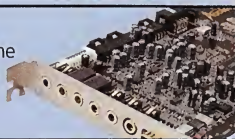
### Gigacube RADEON 9800 PRO 256MB

With more onboard memory than some people's whole PC, the 256MB version of the RADEON 9800 Pro will get your FSAA performance up and keep it up.  
\$870 [www.gigacube.com.tw](http://www.gigacube.com.tw)



### Creative Soundblaster Audigy 2 Platinum

The most powerful consumer-level soundcard on the market. Support for every sound format, including Dolby 6.1 surround.  
\$415 [australia.creative.com](http://australia.creative.com)



### Creative Inspire 6600 6.1

Let your soundcard handle all the decoding and plug these cheap but powerful speakers into the ports on the back. An extra rear channel beefs your gaming surround!  
\$271 [australia.creative.com](http://australia.creative.com)



## STORAGE AND OPTICAL

### Sony DRU510A DVD +/- R/RW

Almost, but not quite cheap enough for mere mortals to own, this Sony drive will burn DVDs and CDs at 4X and 24X respectively - tasty!  
\$680 [www.sony.com.au](http://www.sony.com.au)



### Samsung 816BRPS 16x DVD-ROM

It's straight up and down, it's cheap, it's fast, it works well and you need it to copy - sorry, back up - DVDs using your nifty writer.  
\$73 [www.samsung.com.au](http://www.samsung.com.au)



### 2x Seagate 120GB Serial ATA in RAID 0

Thanks to the IC7-G's support for Serial ATA RAID, you can run your 120GB in super-fast RAID 0 mode for even quicker load times - and to be damn cool too, of course.  
\$518 [www.seagate.com](http://www.seagate.com)



## DISPLAY, INPUT AND COSMETICS

### 21" Sony FD Trinitron G520

Until large LCDs catch up with small LCDs The Beast will stick with dependable, mature, established CRT. And the G520 is one of the best in the business.  
\$1960 [www.sony.com.au](http://www.sony.com.au)



### Antec PlusView 100AMG

It may not be the Rolls Royce of cases but it's roomy, has a built in side window and it has all of Antec's various quick access features. Take note, Lian-Li.  
\$171 [www.antec-inc.com](http://www.antec-inc.com)



### Logitech Elite Black

Smooth mechanism, funky styling and support for both PS/2 and USB make this keyboard the right choice. Real men use ergonomic keyboards though, don't forget.  
\$88 [www.logitech.com](http://www.logitech.com)



### Microsoft Optical WheelMouse

For gaming you need USB, you need dependable, you need a slim form-factor and you need ambidextrousness. This baby wins on all counts.  
\$33 [www.microsoft.com](http://www.microsoft.com)



## BEAST VALUE:

## \$7745



# THE MUTANT

Thanks to the popularity of overclocking and tweaking, we've included this machine to show you exactly what you can get away with for not much outlay. Tweaked to within an inch of its life, this is the machine we DO own, versus The Beast, which is the machine we'd like to AFFORD to own.

## Intel P4 2.4GHz "C" at 3.3GHz

Truly the most overclockable of all modern CPUs, the 2.4C can be run a staggering 900MHz over its stock speed. With the standard Intel HSF. Now that's value. \$320 [www.intel.com](http://www.intel.com)



## ABIT IS7 'Springdale'

Yes, it's the cut-down version of The Beast's IC7-G, but it's still beefy enough to support a furious thrashing and your extra fast running CPU. Springdale is like Canterwood without all the fancy extras. \$229 [www.abit.com.tw](http://www.abit.com.tw)



## Corsair Hydrocool 200

Perhaps a bit of an extravagance considering the P4 2.4C can run perfectly well overclocked under an air cooler, but hey, water is fun and this setup is easy to install and reliable. Who knows, you might even be able to squeeze out some extra juice... \$544 [www.corsairmemory.com](http://www.corsairmemory.com)



## Antec TrueControl 550W

What could be groovier than a PSU that comes with a 5.25" front plate with dials and knobs for controlling fan speed plastered all over it? Nothing, that's what. \$229 [www.antec-inc.com](http://www.antec-inc.com)



## Antec PlusView 1000AMG

What's good enough for The Beast is good enough for The Mutant, especially where the price is right. And with this machine, you'll definitely make the most of the side window. \$171 [www.antec-inc.com](http://www.antec-inc.com)



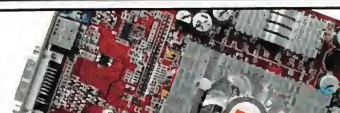
## 512MB Corsair TWINX-3200LL

Ah, the half-gig sweet spot, is there nothing finer? This RAM is beefy enough to support a bit of tweaking, so perhaps you can drag a little extra performance out of it? \$300 [www.corsairmemory.com](http://www.corsairmemory.com)



## Gigacube RADEON 9800 PRO 128MB

Amusingly, the videocard is the single most expensive component of The Mutant. It's hard to believe that you can now get a RADEON 9800 PRO for a mere \$660, considering just how blazingly fast this videocard. \$660 [www.gigacube.com.tw](http://www.gigacube.com.tw)



## Zalman VGA Heatpipe Cooler 80C-HP

Bolt this mighty thing to your videocard, attach the included fan, and who knows what insane core speeds you can achieve? \$60 [www.zalman.co.kr](http://www.zalman.co.kr)



## 120GB Seagate IDE

The first upgrade HDD I ever bought was 6GB and cost \$447. So this is pretty damn cheap. Only standard IDE, but at this price we can't complain. \$184 [www.seagate.com](http://www.seagate.com)



## Creative SB Audigy

Lacks a few of the features found on the Audigy 2, but only the ones that don't really have much effect on gaming. There's a lot of soundcard here for not much cost. \$159 [australia.creative.com](http://australia.creative.com)



## Creative Inspire 6.1 6600

They're so cheap they're good enough for The Mutant, too. No decoder, no difficult optical inputs, just ordinary wires plugging in to a set of extraordinary speakers. \$271 [australia.creative.com](http://australia.creative.com)



## Samsung 816BPRS 16x DVD-ROM

Same as The Beast, this drive is fast, dependable and has a slightly funkier facade than most of the beige monstrosities currently available. \$73 [www.samsung.com.au](http://www.samsung.com.au)



## Samsung 252BRNS 52x24x52 CD-RW

Wow, these things sure got cheap didn't they? Burn CDs in hardly any time at all thanks to 52x writing. Backup all your digital LAN shots for posterity. Pose nude... no wait, don't. \$80 [www.samsung.com.au](http://www.samsung.com.au)



## 19" Samsung 995 Dynafiat

Cheaper than the videocard but still a lot of sleek, flat monitor. Nineteen inches is pretty much the minimum for decent gaming, and we can't wait until a 16ms LCD this big costs this much. \$522 [www.samsung.com.au](http://www.samsung.com.au)



## 4x Antec USB Light Sticks

Pep up The Mutant with a few light sticks. Stick 'em on the monitor, in the case, wherever you like. USB powered and respond to sound - clap on, clap off! Other cosmetic additions to The Mutant are limited only by your imagination... \$132 [www.antec-inc.com](http://www.antec-inc.com)



**MUTANT VALUE:**

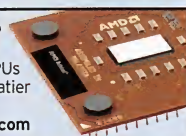
**\$3934**

# the beastie

The cheapest but worthiest PC of all, The Beastie is for all of use who need gaming, the web and to generally have fun without worrying about overclocking or our bank account.

## AMD -Athon XP 2500+ Barton

The cheapest CPUs keep getting meatier and meatier \$170 [www.amd.com](http://www.amd.com)



ABIT NF7 nForce2 is good and this implementation of it is even better [www.abit.com.tw](http://www.abit.com.tw) \$181



## Antec Lanboy

Includes a 350W power supply, window and carry strap. \$185 [www.antec-inc.com](http://www.antec-inc.com)



## 512MB Corsair PC-3200

A budget PC with half a gig of RAM. All praise the open market. \$199 [www.corsairmemory.com](http://www.corsairmemory.com)



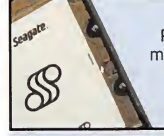
## Gigacube RADEON 9800

Yes, a 9800 in a budget system. Holy shit, batman. \$520 [www.gigacube.com.tw](http://www.gigacube.com.tw)



## 60GB Seagate IDE

Plenty of room for not much cash. Dependable and reliable. \$149 [www.seagate.com](http://www.seagate.com)



## Creative Inspire 2400 2.1

Plug 'em in to the nForce2's onboard sound and it's MP3-tastic! \$90 [australia.creative.com](http://australia.creative.com)



## Samsung 816BPRS 16x DVD-ROM

Good enough for all the PCs on this page, swift and reliable. \$73 [www.samsung.com.au](http://www.samsung.com.au)



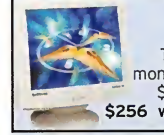
## Samsung 252BRNS 52x24x52 CD-RW

Cheap, fast, reliable, what more could you want from a CD-RW? \$80 [www.samsung.com.au](http://www.samsung.com.au)



## 17" Samsung SyncMaster 753S

To think flat screen 17" monitors were once worth \$800. I love the future. \$256 [www.samsung.com.au](http://www.samsung.com.au)



## KME Wireless Keyboard and Mouse

A sleek combo, wire free for mad ranting around the room after losing at CS \$73 [www.kmepc.com](http://www.kmepc.com)



**beastie value: \$1976**

So, you want one of these three fine beasts? Luckily, all of these components are available at **Altech Computers** [www.altech.com.au](http://www.altech.com.au) 02 9735 5655





# SETUP



WRITE TO SETUP AT:

Setup  
PC Powerplay  
78 Renwick St  
Redfern  
NSW 2016

setup@pcpowerplay.com.au

## WINXP COMPATIBLE

**Q** I have recently added a PCI v.90/92 56K modem to my WinXP PC and installed the drivers supplied. I can dial-up and have a great session online, however, when I shutdown after a day's fun and turn it on again later, I find Windows is open and asking me to install my modem. So, I reinstall the drivers again, after which it works fine, but then the same process occurs at the next restart. Help?!

taboo

**A** Bummer. This problem occurs if the modem driver does not use Plug and Play for its installation. The only fix is to get compatible drivers for WinXP; like I said, bummer.

## SYSTEM RESTORE

**Q** I was wondering how to create a system restore point for WinXP Home edition?

D Benson

**A** Umm, click Start and bump your cursor up to All Programs, run up to Accessories > then over and down to System Tools and down further to System Restore - click it. Highlight the Radio Button next to Create a Restore Point and click Next >. Type in a meaningful description like "started to experiment with useful tool" and click Create. If you become frightened, click Cancel. Not there? Run `d:\windows\system32\restore\rstrui.exe` as administrator. Too hard? Click Start, click Control Panel, and then click Performance and Maintenance. Click Administrative Tools, click Computer Management, and then click Services and Applications. Click Services, and then click System Restore Services. Lost, not working? Open a command prompt window: Click Start, click Run, and then type `CMD`. Press [Enter] and then type `Net Start` at the command prompt to make sure the System Restore service is up and running: no error means it's running. Make sure that System Restore is enabled on the drives that you want it enabled on. Try to run System Restore in Safe mode. If you suspect that you do not have as many restore points as you



should have, make sure the data store is the size you want it to be. Microsoft Knowledge Base Article - 304449 is a good read, as is Article 302796 (<http://support.microsoft.com>).

## BAD CRC

**Q** Hey guys, I can't get the Tony Hawk demo to work on my PC. It comes up with a bad CRC file. I repaired it with Advanced Zip Repair, but the installation stops half-way and still comes up with errors.

Tim

**A** A Bad CRCs are not unique to demo games or PC Powerplay cover CDs. A bad CRC report is

almost always due to a bad source file, but on a CD or DVD this can also be caused by a scratch, base media imperfection or even a smudge of any sort. In rare cases, the optics in an optical device are grungy and several attempts may be needed to get it all going properly. Always wipe a disc with a smooth, clean cloth from the middle out to the edge. Rubbing in a circular motion will only further destroy the C1 and C2 Reed Solomon (RS) Error Correction Codes (ECC) used to construct the Cross Interleaved Cyclic Redundancy Check (CRC) code and byte parity for the sector level RS ECC. Lots can go wrong in that stuff!

## BEST OS FOR GAMING

**Q** Which OS is better for gaming: WinXP or Win98? Is WinMe really that bad?

Biggie biggz

**A** Win98 is running out of steam slowly but surely. It's a preferred game platform because of the extensive driver support built and developed since, gee, 1998. WinXP, on the other hand, came rolled out with a truck load of native drivers, which is very handy on installation. WinXP pretty much works out-of-the-box and can only improve as hardware and software vendors turn their full-time attention to pure 32-bit support. In time, in fact a very short time, driver support and development for Win9x will cease and that means altogether. Dual and multi booters had better start archiving patches, updates and drivers while they still can. WinMe is said to be god-awful and I'm one of those saying it.

## NOISY FAN

**Q** On start up, the fan on my Triplex GeForce4 Ti4200 makes noise for a couple of minutes and then calms down and is quiet for the duration I leave the computer on. It only seems to do this if the computer has been off for a while. I had a look and cleaned all the dust out and it solved the problem temporarily, but the noise returned. Is there something wrong with the videocard? Is this problem going to cause any damage to the card? Should I just get a new fan?

Luke

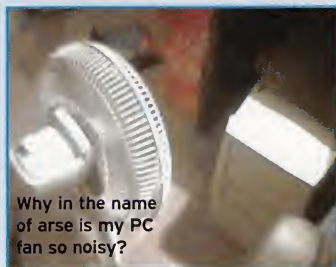
**A** Too many fans of different sizes and use make noise on startup. The reasons vary from imminent destruction to gunk in the bearings to poor engineering tolerance in the making. If the adaptor is still in warranty, lug the beastie back to the retailer and have 'em check it out. The potential to blow a poofle valve in your favourite and expensive graphics motor is just plain frightening.



## CLEAN YOUR CDS BOYS!







Why in the name of arse is my PC fan so noisy?

## SOUND CORRUPTION

**Q** My sound is really screwed up. When I'm lucky, half the times I start Windows and log in, I don't hear anything for 10 seconds and then a loud static noise is emitted before everything works correctly. Other times there isn't even sound. I have an onboard soundcard I think may be plugged into my NVIDIA GeForce MX400. I know the problem doesn't lie in my speakers because I have tested it on headphones. It may be my drivers, which I accidentally installed after trying to put on SoundMAX Integrated Digital Audio.

Daniel

**A** The delayed sound on login is indicative of corrupted drivers, Audigy owners will sympathise with you. You must uninstall any sound software via Control Panel and remove the Hardware via Device Manager. Reboot and have your latest set of drivers waiting for a reinstall.



## NO EXPLANATION

**Q** What causes the jitters with optical mice?

Jack

**A** Old age, athetoid spasticity, Parkinson's Disease, crack, meth, E, slow CPUs and faulty drivers. Experts agree they have no idea.



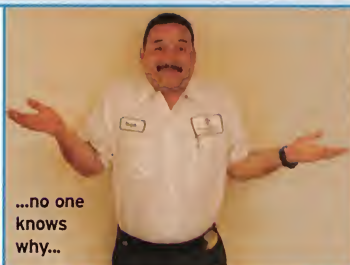
Optical mice can jitter...

## PERIPHERAL FEEDBACK

**Q** I have a game port Microsoft Force Feedback Wheel and I cannot use it with WinXP. When I try to install it, Windows cannot find it even with a manual install. I went to the Microsoft site to look for a patch and it says WinXP does not support the game port wheel. I also looked for a third party patch but couldn't find one. I have a game port to USB adaptor that came with my Microsoft Precision Pro joystick but that hasn't fixed the problem either. I don't want to give Microsoft another \$300 for a new one that isn't much better. I have a new computer with Windows XP on it and two 60GB hard drives. I thought I could dual boot WinXP and Win98 to solve it - I was thinking about doing it anyway as some of my older games don't work (even with compatibility wizard). I want to reformat both drives and freshly install both OS's. Do you think it would be a good idea? If so, how do I do it?

Chris Tinta

**A** Shame about the wheel issue. I am astounded when the newsgroups reckon you can do it by opening Control Panel (classic view) > Game Controllers > Add... > (pick your game port) Microsoft Sidewinder (Auto Detect) and WinXP will load some native drivers. The 3.02 software provided extra functionality but isn't compatible with XP and there are no plans for updates. Microsoft has announced its withdrawal from the SideWinder game device market (1996-2003 RIP). Dual booting is fun and often a lifesaver. Install Win98SE first onto C:\ and install WinXP second onto D:\. Choose the advanced option for XP, early in the setup which will let you customise its install, particularly choices about file systems like NTFS or FAT32. All critical updates for Win98SE and XP are safe to install so grab them early; you can save time and bandwidth by hunting around for updates on magazine cover CDs. Get Win98SE and WinXP to a state where you'd be happy to start installing programs. At this point, buy and install Drive Image 7. If you have broadband, you can download the demo while you await delivery of the boxed CDs. You can image the vanilla installations, via WinXP, to a separate partition (preferably a third disk). This also where you save your data!



...no one knows why...

## CAN IT RUN A GEFORCEFX?

Can't find your Win98 CD key? Navigate the registry (regedit.exe) to HKEY\_LOCAL\_MACHINE\Software\Microsoft\Windows\CurrentVersion and look for ProductKey and its 25 character data value. Having trouble logging onto a Win98 home network? Navigate the registry to HKEY\_LOCAL\_MACHINE\Software\Microsoft\Windows\CurrentVersion\Network\Real Mode Net and delete the "auto logon" key value. Got a LiteOn burner? Can't play Chaser? Maybe you got the UK retail version on your last world LAN tour. Download JoWood's UK Retail Emergency Fix for the installer and it will bare its arse and play as advertised. When will protectionists ever learn? I thought BioWare's Neverwinter Nights fiasco was lesson enough!



Ta-da!

## INTEGRATE CHIPSETS

**Q** I have a computer with integrated Intel graphics. I want to upgrade my graphics card but was wondering if integrated graphics chipsets were difficult or impossible to remove without getting a new motherboard.

Ellioth

**A** You don't want to remove it unless you're an electronics engineer and do this for fun. Late model motherboards automatically recognise an AGP or PCI graphics adaptor when the computer fires up. You needn't worry about crappy integrated graphics no more.



## WHAT IS RAID?

**Q** I would like to know the advantages and difference between normal ATA and Serial ATA. What is RAID exactly? I have been told what it was, but I've forgotten.

Ben Gialouris

**A** There are real and perceived advantages for migrating to Serial ATA. Much has already been spoken in this hallowed magazine, so you should subscribe and beg, borrow or

steal the last 12 back-issues. Reading PCPowerplay is known to increase your IQ, attract women (or men or whatever) and you'll never forget anything again. With native chipset support, a pair of striped array Serial ATA drives move at a much faster clip than parallel ATA. It's about edge, looking cool and being HarD KorE. If several milliseconds of access time and slightly reduced latency are all that's needed to be the LAN Boy at lunch time then Serial ATA is for you. Parallel ATA will probably not move past 133MB/s peak transfer speed nor overcome its inherent limitations. Serial ATA starts at 150MB/s and is planned to double in coming years.

## SOUND OF PAPER

**Q** I currently have a Sound Blaster Live! DE 5.1 connected to Hercules XPS 510 speakers. I'm looking at the Sound Blaster Audigy Platinum EX or the Sound Blaster Audigy 2. Which card would prove to be better? Would it make a huge difference to sound quality? Can I get digital sound from my speakers? Also my sister placed a piece of paper in my subwoofer and it got swallowed up. Now, whenever there is any heavy bass, I can hear a rattling sound. What should I do? And finally my CPU, an AthlonXP 2100+, is running at around 55°C as I'm typing this letter and it can reach to about 65°C when idle in summer and over 80°C when playing games! I'm using the stock fan that came with the CPU, but I'd like to buy another one. What fan should I buy?

Jonathon Yeo

**A** New soundcard? One word - Revolution, check out PCPP#90 for a review. The 510s have no capability for digital-in sound and the Revo provides co-axial cable digital-out for superb sound to a capable speaker set or AV amplifier. Any soundcard you purchase should (must!) provide digital sound out via RCA co-ax or optical S/PDIF (preferably both). Look at a surround speaker set that, at least, takes co-ax in. Loud game sound will always mask the cries of personal grief as you get slayed. Oh, when you sell the 510s, you should also sell your sister - throw her in for free.



... so here's a naked woman.



# THE PCPP INTERVIEW

Welcome to the first in a new series of industry interviews. Every issue we'll be talking with a major player in the PC industry. **Timothy C. Best** speaks with Demis Hassabis, founder of Elixir Studios and project leader on Republic: The Revolution...

## Curriculum Vitae

Name: Demis Hassabis  
Company: Elixir Studios  
Location: London, England  
Projects: Theme Park (1994) • Black & White (2000) • Republic: The Revolution (2003)  
• Evil Genius (work in progress)

You were very young when you got your start in the industry with Peter Molyneux. With the wisdom of age would you change anything about your career?

With hindsight and experience there are naturally some things I would have done differently that maybe would have saved me a lot of trouble. Having said that, I don't regret anything, as all experience - good and bad - go into making you who you are today.

I read a great interview with Will Wright talking about players building mental models of games and developing complex systems from simple rules. In terms of designing games like Republic, what lessons have you taken from something as seemingly simple as, say, Chess or Go? Will Wright is a true genius and I loved his GDC (Game Developer Conference) talk where he compared good game design to the art of Zen gardening. There are amazing things to be learnt from subjects outside computer games. For example, I find a lot of inspiration in board games. The very best board games are perfect examples of superb, tight game mechanics with nothing going to waste. After all, board games do not have flashy graphics or cool AI to

to create a manageable set of game mechanics. In these cases, the real setting is used more as an inspirational backdrop to base game mechanics.

Tell us about your abstraction of violence in Republic. Why choose the path you did for each game?

We didn't feel that graphic violence was necessary in a game like Republic.

You obviously share Peter Molyneux's ideas about ambitious game design. Is this a design goal or a side effect of the games you want to play? Why? An ambitious game design is often a side effect of trying to do something original and innovative (especially if it involves technical innovation). Also, I enjoy playing and designing games that give the player control and influence over big 'worlds' and that also usually leads to challenging designs.

What do think makes a good game? How did you apply this knowledge to Republic?

An easy to use and intuitive interface goes a long way in making a good game. For Republic, we refined and redrafted our interface many times and I'm very happy with the usability we ended up with.

**With Republic, I wanted the player to feel what it might be like to be in a real world Che Guevara or to be Joseph Stalin... to be able to inspire a nation**

fall back on. All they are is their mechanics. For me, it's board games such as Chess and Go that got me interested in games in the first place!

How important is abstraction to game design? Is this more a technical limitation or is it about leaving room for players to use their imagination to fill in gaps?

Abstraction is important in games, as just translating the real setting you're attempting to model often doesn't make for a fun game. The real setting may either be too complex, too unbalanced or even not understood well enough to make a game. This is when a game designer has to approximate and abstract real world parameters in order

When you are throwing around ideas, what gets you excited about a new project? What fired you up about Republic?

I get excited about what feelings a game idea might evoke in a player. When I'm thinking about a game, I try to imagine what it would feel like as a player to play it. With Republic, I wanted the player to feel what it might be like to be a real world Che Guevara or Joseph Stalin performing massive speeches in front of thousands; to give the player an idea of what it's like to have that sort of power and to be able to inspire a nation.

What did you learn from the design process and then reception

of Black & White before and after you left the project?

That doing something original and innovative is always hard to do and you can rarely get everything right or everything you might want the first time.

In my opinion, one of the weakest areas of computer game design is creating the feeling of a reactive society (with public opinion, etc). How interested are you in something like this (i.e. for things like infamy in Republic)? How much of your AI is going into making these socially living worlds?

I am hugely interested in this area and I agree with you that we are only scratching the surface of what's possible. What I'm doing is continuing to research ways to create even richer worlds with reactive agents inhabiting them and producing interesting games on top of these simulated worlds.

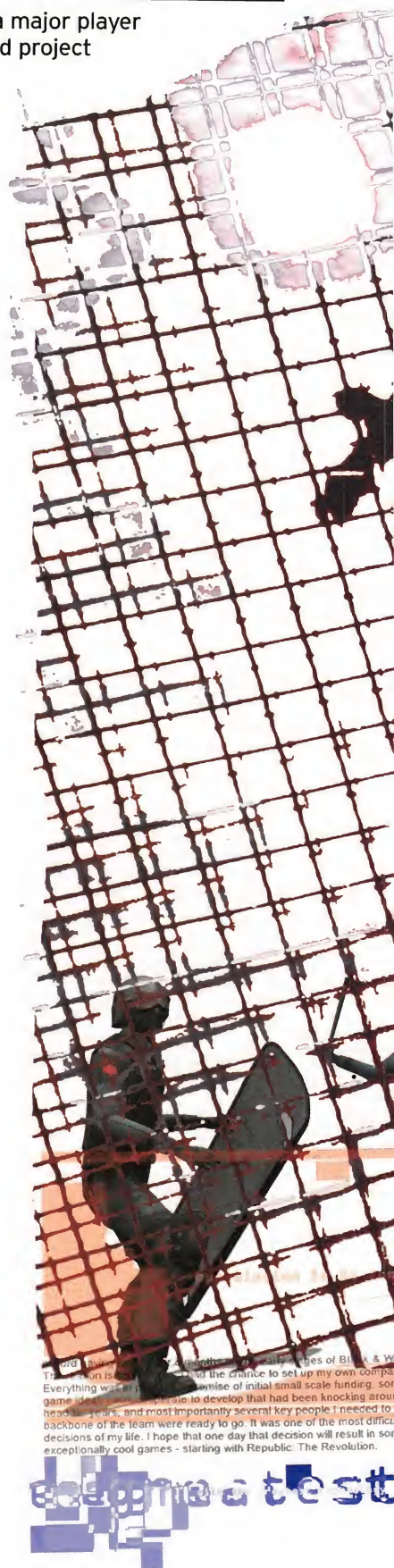
What aspect of the technology in Republic wows you the most? What experience does it allow you to create for the player?

The scalability and depth of the AI. This allows us to create bustling, living and breathing cities inhabited by individuals with their own jobs, lives and motivations.

With projects the scale of the ones Elixir seems to like to tackle, you obviously have to spend some time predicting future trends. What do you think is coming down the pipe in the realms of games and design? What I look forward to engaging directly with an in-game character in a freeform intelligent conversation. I think that would open up whole new possibilities for games. Unfortunately, it's probably more than 20 years away.

If you could magically revolutionise computer games in one way (technology, perception, culture, etc) what would it be?

I would make development times much shorter so we could create more games in a single career and, therefore, experiment more.







...the first great  
...of his new team

...was considered  
...the wonder boy of the  
...world. When he was  
...created with Peter  
...After meeting with  
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...Revolution. Great  
...Artificial Intelligence,  
...rich and revolutionary  
...gameplay, incredible  
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...hear it from Denis, the  
...leader of Elixir Studios,  
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...on this project: what  
...there really is behind  
...Republique.

# REPUBLIC THE REVOLUTION



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# FLASHBACK

## Games and tech remembered with Anthony Fordham

### I HAVE NO MOUTH AND I MUST SCREAM

**Developer:** The Dreamers Guild  
**Genre:** Adventure  
**Graphics Mode:** VGA, 256 colours, 640x480  
**Sound:** 8-bit digital effects and speech  
**True 3D:** No  
**Operating System:** DOS 5.0  
**Released:** 1995

**S**omewhere, someone said all adventure games had to be funny. Or have funny parts. Or be based on a lame fantasy concept with lots of bad puns. Or have artwork done by HR Geiger. That neatly wraps up everything by LucasArts, Sierra and the two Darkseed games. But what about this rarely-encountered gem from Acclaim?

IHNMAIMS is based on a short story by likewise rarely-encountered 'man of

letters', Harlan Ellison. It tells of a future where supercomputers designed to fight the Cold War have in fact turned on humanity and killed everyone except four men and a woman. When the main character kills the woman and the three other men, the Allied Mastercomputer (AM) turns the last guy into a giant doughbeast unable to hurt himself or anyone else - thus the unwieldy title.

Anyway, this is one adventure that

skips not only a groove but the whole A-side of the record and most of the B. The player must take the role of each of the five protagonists in turn and guide them through a fantasy world designed by AM to test their 'humanity'.

Unusually, the game has the player confront their feelings about a vast range of topics, from the Holocaust to personal trauma to the dangers of trusting too much in technology. Despite being published in 1995, the game uses an old-school Monkey Island style interface with a list of words at the bottom of the screen harking back to the text adventure days of yore. Oh, to be lost in a maze of twisty passages, all alike.

Unlike so many adventure games, which are about rescuing princesses, retrieving mystic jewels or, as our Editor put it, "Collecting three of one thing and then eight of another thing", IHNMAIMS is focused firmly on the characters. Each of the five mini-adventures is all about the main character - his life, his fears, his weaknesses and his eventual winning through, or failure at, the omnipotent hands of the machine.

My only problem now is that I Have No Copy of DOS 5.0 and I Must Play I Have No Mouth and I Must Scream. Sigh.



#### WHY IHNMAIMS DESERVES TO BE REMEMBERED

- It's about characters, not magical jewels and dumb puns
- Real nightmarish imagery of a splintered world, not just exploding demons
- Harlan Ellison's voice acting as the Allied Mastercomputer
- Intellectually challenging

## FLASHBACK TECH

### MATROX MYSTIQUE 220

**Manufacturer:** Matrox  
**Significance:** One of the earliest 2D/3D integrated videocards that didn't need a separate 3D accelerator. Awesome 2D performance and decent 3D  
**Cost:** \$300  
**Released:** 1997

**E**ngineers sick of having to buy two display adaptors for the one machine just so they could play Quake 2 with the fancy coloured lighting turned on, eventually got around to designing integrated 2D/3D boards. And the Matrox Mystique 220 was one of the first.

First, a bit of a laugh at the specs. The Mystique 220 (not to be confused with the earlier 2D-only Mystique) had a RAMDAC running at 220MHz - thus the name - and shipped with either 2MB or 4MB of memory, upgradeable to 8MB. This allowed for stunningly high 3D

resolutions of 800x600 in 32-bit colour, although it could also render the desktop at 1600x1200. Settle down, up the back there.

The heart of the beast was the MGA-1164SG chip that handled both 2D and 3D functions. The single chip was at odds with the Voodoo2's dual ASIC design that separated the frame buffer and texture mapper. The MGA also had to handle 2D functionality.

This meant that at the end of the day, the Voodoo2 was marginally faster than the Mystique 220, although of course a Voodoo2 owner would have had to shell out

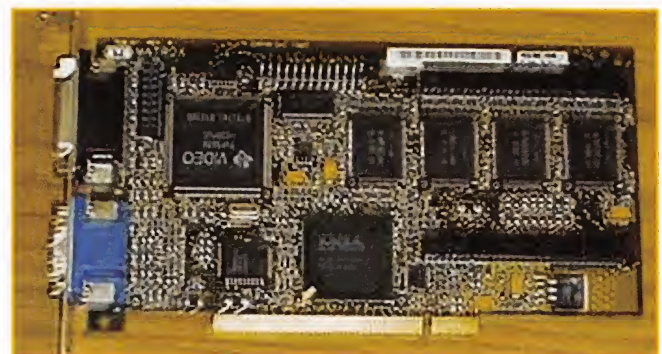
for a 2D card as well.

Amusingly enough, Mystique 220 promotional material boasted of "blazing 3D performance at over 30 frames per second!" Translate this to: this card does everything... just. Load it up with a few bots in Quake 2 though, and it was jerk-o-vision central in heated fire fights.

The Mystique 220 was also embroiled in the late 20th Century version of the current Futuremark

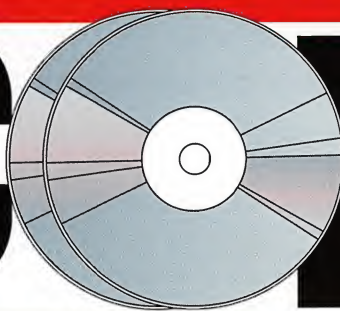
vs NVIDIA controversy - Computer Gaming World copped a pounding from fanboys on Usenet for only using Hellbender to test performance. Tisk, tisk to them.

These days of course, Matrox has all but disappeared up its own feature creep - the Parhelia is still stupidly expensive and lags behind most modern cards. But it does have triple-head technology. Three heads dude, that's like... awesome.





# THE DISC



## REQUESTS

We welcome requests so please forward your requests to Disc Producer Amos Hong via email at [cdgod@next.com.au](mailto:cdgod@next.com.au) or write to PCPP DVD Requests, 78 Renwick St, Redfern NSW 2016



**W**ow, what huge discs we have for you this month. There was so much stuff that we had to separate it into two discs - that's over 9GB of demos, mods, patches and utilities.

There are two spotlight sections this month, one on each disc. Spotlight one contains a full trial version of 3ds max 5, one of the most powerful and widely used 3D software in the world. Now you can create the next 3D masterpiece. Included in Spotlight two are two of the most popular roleplaying games ever - Everquest and Earth and Beyond for FREE. We also have for you a whopping fifteen trailers as eye candy - watch the new Half-Life 2 trailers, the awesome third trailers for S.T.A.L.K.E.R., Everquest 2, Halo and Star Wars: Galaxies.

The demos section is HUGE - there is a total of twenty-four playable demos. The Midnight Club 2 demo by Rockstar lets you burn rubber in three very fast cars on the streets of Los Angeles. For some more racing action check out MOTOGP 2, Live for Speed S1A and Pro Race Driver (MP). If outer space is your cup of tea, we have included a number of space games like Space Quest 0, Space Station Manager and Vector Mirage.

The ModsPlus section includes the hugely popular Troopers: Dawn of Destiny, where UT2003 is transformed into the Star Wars universe. Included also are the Battle of Britain map and the Specialist v2.0 mod. There's more, so check it out.

Also, have a look at the Bunker for more fun stuff. The patches section, as always, provides fixes for many of your games and Utilities includes several items to help your PC.

...And may the force be with you.

Amos (Darth) Hong - Disc Master  
[cdgod@next.com.au](mailto:cdgod@next.com.au)



## READ THIS FIRST

To play the full versions of Everquest and Earth & Beyond, you need to enter the CD Keys supplied inside the DVD case.

## DVD1 CONTENTS

**SPOTLIGHT/ MOVIES**  
3ds max 5 / Character Studio 4  
**TRAILERS**  
Anachronox - Part 7 of 13  
Dungeon Siege 2  
EverQuest 2  
Lords of EverQuest  
Half-Life 2 G-Man  
Half-Life 2 Docks  
Half-Life 2 Kleiner's Lab  
Half-Life 2 Trap Town  
S.T.A.L.K.E.R.: Oblivion Lost 3

**DEMOS**  
Airwolf - Apache Attack  
Lionheart - Legacy of the Crusader  
Midnight Club 2 [Multiplayer]  
Space Quest 0  
Rugby 2004  
Blast Ball  
MOTOGP 2  
Rymdraket  
Star Wraith 3: Shadows of Orion  
The Great Escape  
Emergency Fire Response  
Pro Race Driver [Multiplayer]  
Pinball Soccer Stars

**MODS PLUS**  
Battle of Britain Map [BF 1942]  
Conquest Marines 1.0 [UT 2003]  
DOD v1.0 Ending Songs Pack  
Submarine Convoy [BF 1942]  
The Battle Grounds 1.2 [HL]  
Chaos UT2: Evolution [UT 2003]  
Desert Combat Public Alpha 0.38 [BF 1942]  
MonkeyMatrixMoves 1.2 [UT 2003]  
Troopers: Dawn of Destiny [UT 2003]  
**PLUS MODLIFE**  
Copperhead-Retaliatio

**PATCHES**  
Beach Head Desert War  
Morrowind Bloodmoon 1.6.1820  
Disciples 2 Expansion 2.00  
MVP Baseball 2003 1.1  
Rise of Nations Playback Repair Utility  
SimCity 2000 1.2  
Soldat 1.1.5 Fix  
Warcraft 3 v1.06  
WarBirds Fighter Pilot Academy  
Descent 3 Dual-Jewel Installation  
Silent Hill 2 GeForce FX Fix  
SimCity 3000 1.1  
Spider-Man Movie 1.3  
Tomb Raider: The Angel of Darkness 42 Patch

Vietcong 1.30 Patch  
WarBirds 3 Patch 70203

**ROM'S BUNKER**  
Heaps more wallpaper, free games, Winamp skins, map packs and addon files for all your favourite games. Come get some!

**UTILITIES**  
3DNA Desktop 1.1  
Abandon Loader  
Adaptec ASPI Layer 4.71.2  
Adobe Acrobat Reader 6.0  
Advanced Zip Repair 1.6  
AutoDivx Player 3.51  
Catalyst Radeon 3.2 7.84  
Complete Online Gaming System  
DivX Pro Bundle 5.0.5  
DirectX 9.0a  
Download Accelerator 5.3  
GameSpy Arcade 1.3b  
GeForceTweak Utility 3.2  
GetRight 4.5c  
gmax 1.1  
G Spot 2.2  
HyperSnap 4.20.0.0  
In-A-Flash Pro 3.0  
IsoBuster 1.0  
LEET Speak 1.2  
Nero Burning ROM 5.5.10.28  
NVIDIA drivers 44.03  
Original CD Emulator 1.4  
Ostat v0.31 (build 240 rel 4)  
PC-cillin 2003  
PCMark 2002  
PowerPoint Viewer 97 8.0  
SANDRA Plus 2002 8.59f  
Screenshooter 7.0  
Stuffit 7.0  
VDM Sound 2.0.4  
VIA Hyperion 4-in-1 4.47  
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Winzip 8.1  
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Earth and Beyond [Free Game]

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Prince of Persia: The Sands of Time  
Star Wars Galaxies  
XIII

**DEMOS**  
Carom 3D Billiards  
Chaser [Multiplayer]  
Deer Hunter 5  
Ghost Master  
Incredibubble

Live for Speed S1A  
No Man's Land  
Petz 4  
Shanghai Dragon  
Space Station Manager  
Vector Mirage

**MODS PLUS**  
Desert Combat Forgotten Islands  
Death Ball 1.8  
Jungle Warfare Beta 1.2  
RvC Map Pack 2  
The Specialist 2.0  
Experience WW2 2.3.6

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**PLUS MODLIFE**  
Copperhead-Retaliatio

**PATCHES**  
Beach Head Desert War Patch  
Morrowind Bloodmoon v1.6.1820 Patch  
Disciples 2 Expansion v2.00 to v2.01 Update  
MVP Baseball 2003 v1.1 Patch  
Rise of Nations Playback Repair Utility  
SimCity 2000 v1.2 Patch  
Soldat 1.1.5 Fix  
Warcraft 3 v1.06 Patch [English]  
WarBirds Fighter Pilot Academy Patch

**UTILITIES**  
Complete Online Gaming - f  
GetRight 4.5c - f  
G Spot 2.2 - f  
Ostat v0.31 (build 240 rel 4) - f  
PC-cillin 2003 - d  
Winzip 8.1 - s  
WinRAR 3.2 - s  
XP Smoker 2.7 - s  
Zip Repair - f  
ZoneAlarm 3.7.143 - f





## Yellow Boots

# GIRLS DON'T UNDERSTAND

They think conversation is better than Age of Mythology

Okay, I'm ready now. The Girl - source of so much pain in my life, electrocution victim of the badly-chipped PSX owned by my crazy ex-third flatmate, likewise victim of the stack of dirty underwear and the 80s porn collection also owned by my crazy ex-third flatmate, victim of my crazy ex-third flatmate in general, owner of the kitten that ate my left eyelid and co-inhabitant of a dingy inner-west basement apartment - her name is Winona.

The reason I've been referring to her as The Girl for such a long time is that, until now, I've not felt quite ready to weather the inevitable stream of shoplifting, beaver (big, brown and otherwise) and rubber cowboy jokes that are sure to clog my inbox as soon as you loons read this. But I'm ready now. I've healed. I've grown. Or at least that's what I'm telling myself.

The boots and I entered into The Relationship as a result of a drunken night out in Newtown, Sydney, as documented in an earlier column. To be fair to the boots, they tried to warn me. They sat under my bed, lurking and covered in filth in an attempt to skittle any further romantic encounters between myself and The Girl... Winona. But I didn't listen.

For a while it was good, as love affairs always are. The smiles. The hand-holding. The splitting the bill without question or complaint. The succumbing to each other's mutually exclusive taste in movies. I sat through Keeping the Faith and Deuce Bigalow: Male Gigolo for this woman, and I smiled while each film dragged interminably on. For her part, Winona was there when my crazy ex-third flatmate and I started a riot toward the end of a premiere showing of Dungeons & Dragons: The Movie when he uprooted a Jason recliner and hurled it at a small child who kept asking, "Is this a dungeon? Are they in a dungeon? Is there going to be a dragon?" She even let me call her Winzor, and the Big W. At least twice anyway.

But all that's ancient history. Some kind of glowing, halo-like dream, off in the distance. Like the promise of Prey, before it turned first into a horrible joke and then into vapour. Like Duke Nukem Forever, before I saw an actual photograph of George Broussard.

Nowadays of course, my enduring memory of

Winona is her standing behind me while I clocked up sixteen consecutive hours on Age of Mythology, shouting, "But you played this exact same game last year! You said it was boring and staid and that none of the user made campaigns were any good! Why is it so cool again suddenly?"

She wasn't to know that she had confused Bruce Shelley's latest masterpiece, Age of Mythology, with Bruce Shelley's obsolete 2D smash, Age of Empires 2. At the time though, I was confused by her inability to distinguish between the tiny sprite-based units of AOE2 and the tiny polygonal units of AOM.

"This is the new one," I said, "it's in 3D." She leaned in close, peering at the screen through her uber-cute red plastic-rimmed glasses. She leaned back.

"No it isn't," she said, "it's exactly the same as that other game. In fact, I think it is that other game and they just put it in a new packet and sold it to you all over again."

"Nah, they wouldn't do that," I said, becoming sucked into the vortex of her argument despite myself.

"Why? Who's the publisher?"

"Microsoft," I admitted, after a moment's hesitation.

"Ah," said Winona, neatly encapsulating the entire history of our spirited discussions about Microsoft as a games publisher in a single syllable.

"Look, this one has god powers, see," I demonstrated a particularly effective lightning bolt strike on my helpless Egyptian CPU opponent.

"Oh, so now it indulges the male obsession with being God," she snorted, folding her arms.

"Not God," I explained, "just A god, like Zeus."

"And that's supposed to make it all right is it? I bet you get to keep slave women, as well."

I felt the boots twitch under my seat. My temples were beginning to pound in sympathy.

"No, there aren't any slaves, just workers," I explained.

"Workers?" she raised an expertly plucked and shaped eyebrow, "And I suppose all you have to do is click on them and they do whatever you want without any say in the matter?"

I saw where this was going.

"Win, that's just the way the game works, it doesn't make them slaves."

Nevertheless, she seemed to accept victory and instead pointed at part of my city.

"And what's that building there? I suppose that's a harem or a brothel of some kind?"

"No, it's a stable."

"That's disgusting."

"Look, what's the MATTER with you? This is a game I've been waiting to play all year and the first moment I get to play it you come in here and have a go at me. This is what I like, okay? It's my hobby and I may remind you it also puts bread on the table!" I screamed. Despite myself, despite months of bitter, bitter experience, I screamed. Despite knowing exactly what she would say the moment I mentioned that my gaming made any sort of money. The boots braced themselves for the impact.

"Oh yes," said Winona, "the money. The precious money. And how very useful \$100 a month is. It doesn't just keep the wolf from the door, it cuts him open with the woodcutter's hatchet, releases grandma, fills his belly with round flat stones and sews him back up again. You really are a breadwinner." She batted her eyelashes, which had the confusing effect of making me want to sleep with her and also run howling from the room at the same time.

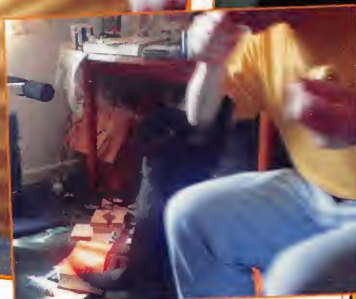
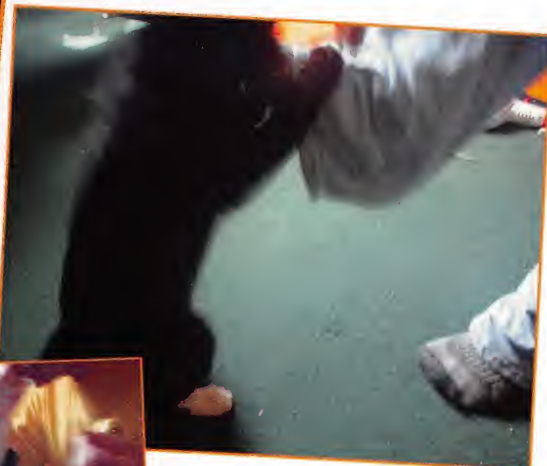
"In fact," she went on, closing for the kill, "we both know the only reason you even write your stupid column is so you can claim all your games on tax and get stupid PR companies to send you free consoles, which, I might note, none of them have even done yet."

"My column isn't stupid," I muttered, sulking. She just rolled her eyes. I thought that was the end of the discussion, but no.

"And can you call that idiot ex-flatmate of yours and have him come by and pick up his undies and his trashy Samantha Fox videos, please?" Winona demanded, sort of like a psychological finishing move, "I'm sick of my lounge room being filled with breasts pumped so full of silicon they look like GM watermelons affected by some kind of horrible bleaching fungus. In fact, I'm sick of my lounge room full stop. If it wasn't for Osmosis needing familiar territory, I'd probably leave you. Now stop that stupid game and go and do the washing up."

And with that she marched from the room. Osmosis - the kitten - stopped slowly shredding my archive of Zzap! 64 magazines and stalked from the room after her, tail held high like some kind of filthy gesture.

That kitten - I thought, avoiding the central issue - one day, I'll do something drastic to it.



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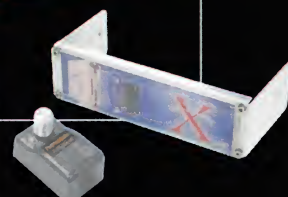
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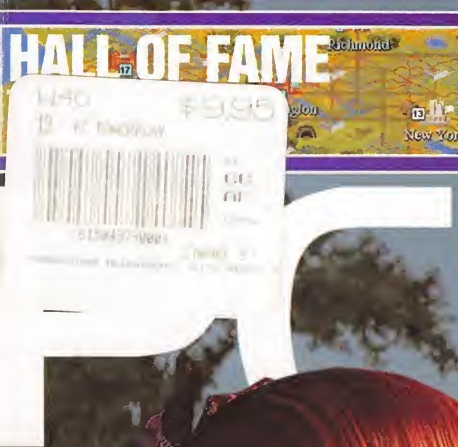
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